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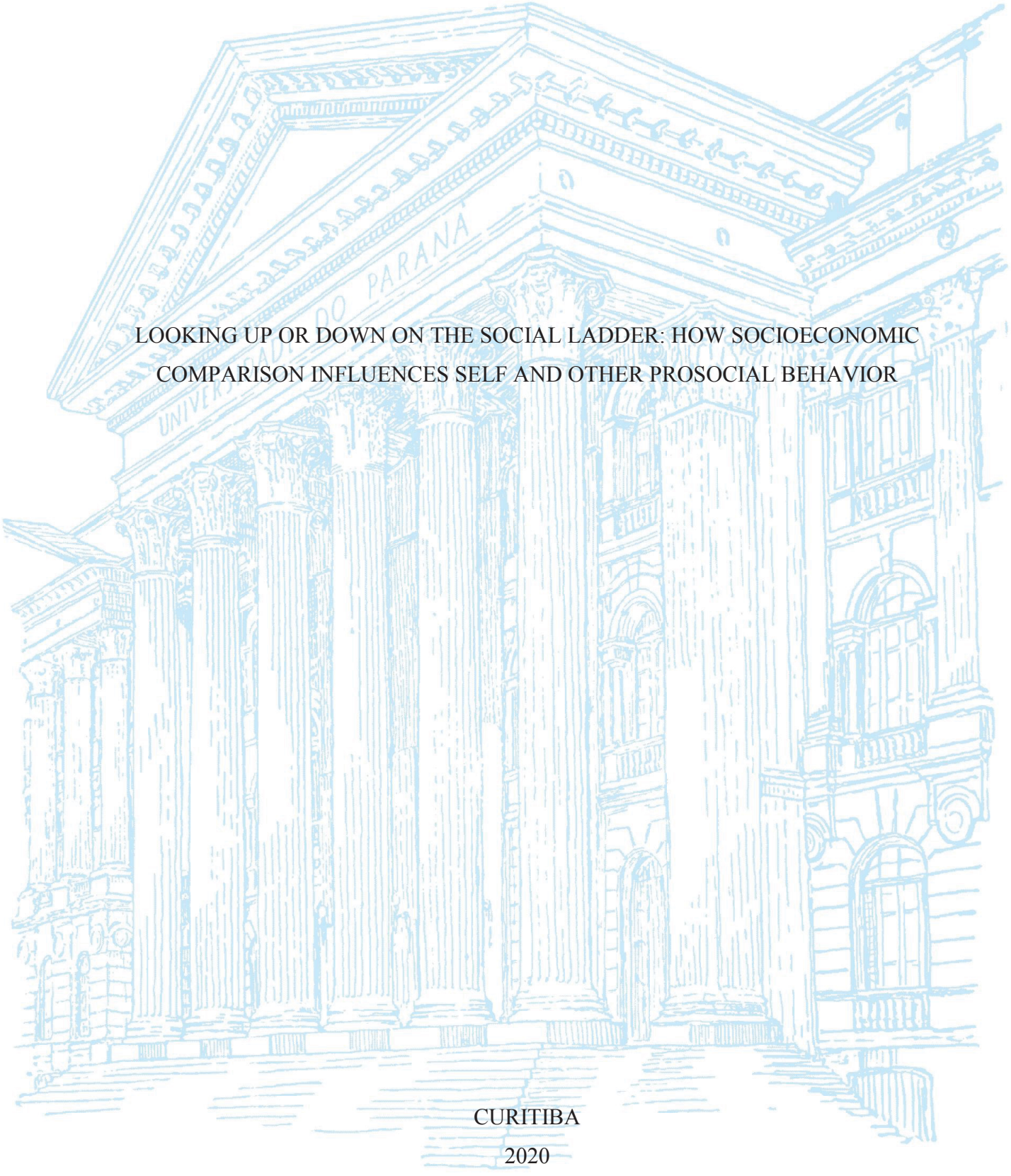
RAFAEL DEMCZUK



LOOKING UP OR DOWN ON THE SOCIAL LADDER: HOW SOCIOECONOMIC COMPARISON INFLUENCES SELF AND OTHER PROSOCIAL BEHAVIOR

CURITIBA

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RAFAEL DEMCZUK

LOOKING UP OR DOWN ON THE SOCIAL LADDER: HOW SOCIOECONOMIC COMPARISON INFLUENCES SELF AND OTHER PROSOCIAL BEHAVIOR

Tese apresentada ao curso de Pós-Graduação em Administração, Setor de Ciências Sociais Aplicadas Universidade Federal do Paraná, como requisito parcial à obtenção do título de Doutor em Administração.

Orientador: Prof. Dra. Danielle Mantovani Lucena da Silva

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TERMO DE APROVAÇÃO

Os membros da Banca Examinadora designada pelo Colegiado do Programa de Pós-Graduação em ADMINISTRAÇÃO da Universidade Federal do Paraná foram convocados para realizar a arguição da tese de Doutorado de **RAFAEL DEMCZUK** intitulada: **LOOKING UP OR DOWN ON THE SOCIAL LADDER: HOW SOCIOECONOMIC COMPARISON INFLUENCES SELF AND OTHER PROSOCIAL BEHAVIOR**, sob orientação da Profa. Dra. DANIELLE MANTOVANI LUCENA DA SILVA, que após terem inquirido o aluno e realizada a avaliação do trabalho, são de parecer pela sua aprovação no rito de defesa.
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Curitiba, 20 de Fevereiro de 2020.

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RESUMO

Os crescentes índices de desigualdade em todo o mundo tornam as comparações sociais mais evidentes. Assim, é fundamental compreender como as atribuições e as intenções dos consumidores são impactadas pelas comparações sociais. Em seis experimentos demostramos que as pessoas, quando se comparam com outra em uma posição socioeconômica superior (comparação social ascendente ou *upward comparison*), atribuirão maior responsabilidade na doação de dinheiro e tempo para os outros em posição privilegiada. Porém, pessoas que se comparam com outros em uma posição socioeconômica inferior (comparação social descendente ou *downward comparison*) irão doar mais tempo, mas não doarão mais recursos monetários. Essa discrepância nas doações de dinheiro é causada pela percepção de recursos excedentes (*spare resources*); enquanto os *upwards* acreditam que os outros possuem mais recursos excedentes, os *downwards* acreditam que não há diferenças entre eles e outros em condição socioeconômica inferior. Também mostramos a influencia da crença meritocrática nas doações, em que os *downwards* apenas doarão mais dinheiro quando possuem baixa crença meritocrática. As diferenças entre as pessoas que fazem comparações sociais podem agravar a desigualdade econômica na sociedade. Pessoas fazendo *upward comparison* delegarão para outros a responsabilidade de realizar doações para a caridade, os quais não acreditam que devem doar mais.

Palavras-chave: Comparação social; comportamento pro social; perspectiva de comparação: self e outros; recursos excedentes; crença meritocrática.

ABSTRACT

The increasing inequality rate worldwide makes social comparisons more evident. It is therefore essential to know how consumers' attributions and intentions of prosociality are impacted by social comparisons. In six experiments, we demonstrate that people comparing themselves to others in a superior socioeconomic position (upward comparison) attribute higher monetary and time donations' responsibility to wealthier others. However, social comparison with others in an inferior position (downward comparison) heightened time donation, but not of monetary resources. This discrepancy on monetary donation is driven by spare resources; while upwards believe that others have more spare money, downwards perceive no differences between themselves and others. We also show the influence of meritocracy on donations, where downwards only donate more money under low meritocratic beliefs. This differential pattern among individuals making social comparisons could exacerbate economic inequality in society. Upwards delegate to others the responsibility to donate for charity, who may not think they should donate more.

Keywords: social comparison; prosocial behavior; self-other evaluative perspective; spare resources; meritocratic beliefs.

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INTRODUCTION

Inequality of wealth in the US and worldwide has soared to unprecedented levels (Atkinson, Piketty, & Saez, 2011; Lakner & Milanovic, 2016). Previous research shows that inequality impacts consumers' judgments about the fairness of wealth distribution (Newman, Johnston, & Lown, 2015; Roth & Wohlfart, 2018). Social comparisons have long been theorized as important for shaping consumers' perception (Festinger, 1954). People compare themselves to others in the social environment to evaluate their relative position (Luttmer, 2005) and how they should behave (Kraus, Park, & Tan, 2017). Social comparisons are augmented by inequality (Cheung & Lucas, 2016; Payne, Brown-Iannuzzi, & Hannay, 2017). It is therefore important to understand how prosocial behavior is influenced by these comparisons.

Social comparison is the human activity to compare self-information with relevant target information (Locke, 2003; Locke, 2007). This study examines how socioeconomic comparison influences assumptions about self and other virtuous obligations. Thereby, we investigate how vertical comparison, referred as downward (when the target is inferior to the self) and as upward social comparison (when the target is superior to the self; Locke, 2007), will shape the attributions of prosocial behavior to the self and to the target of comparison.

Since consumers in a superior socioeconomic position are under the scrutiny of others, they are frequently viewed with higher responsibility to act prosocially by those who make an upward comparison. As a result, people in a lower social position judge that others in a superior position should give more money and time for charity. However, those in a superior position who make a downward comparison only judge they should donate more time, but not more money, compared to others in an inferior socioeconomic position. This is because while those who make an upward comparison judge that others have more

responsibility to donate and have more spare money, those who make a downward comparison do not perceive they have more spare resources.

We also show that individuals' meritocratic beliefs about their social position worthiness (McCoy & Major, 2007; Son Hing et al., 2011; Zimmerman & Reyna, 2013; Davidai, 2018) is key to understand when social comparisons influence donations. Higher meritocracy beliefs reduce self-other differences in monetary donation.

This research adds to the existing literature that investigates the relation between social class and prosocial behavior showing how socioeconomic comparison makes people infer self and other donation obligations toward charity. We are all allocated to a specific socioeconomic class, but social comparisons make the social position more evident, which also impacts attributions of how much oneself and others should donate as well as individuals' perceptions of self-other spare resources. While inequality has increased in recent decades, economic and social policies that aim to help the poor have not gained much support (Ashok, Kuziemko, & Washington, 2015; Starmans, Sheskin, & Bloom, 2017). We show that people attribute the responsibility of donations to others when making an upward social comparison, but do not show heightened monetary donations when making a downward social comparison. This differential pattern of donation attributions and intentions among individuals who make upward and downward social comparisons can exacerbate economic inequality in society. Individuals believe that others in a wealthier situation have more spare resources, and therefore should donate more money and time for charity, delegating to wealthier others the responsibility to donate. However, the richer who make downward social comparisons actually donate only more time, but not more money, than others in an inferior social position.

THEORETICAL BACKGROUND

Social Comparison, Self-Other Inferences, and Prosocial Behavior

Social comparisons are characterized by using deemed relevant information about others to facilitate accurate self-evaluation (Locke, 2005); an apprising process related to one or more people that provides a comparison with the self (Locke, 2005; Schlosser & Levy, 2016; Gong & Sanfey, 2017). Social comparisons are essential for individuals' interactions and assessments about their relative position (Gong & Sanfey, 2017).

Social comparisons can occur in horizontal and vertical directions (Locke, 2003). The horizontal comparison arises when individuals analyze whether others are similar or different from themselves. Vertical comparison, also called status comparison, occurs when people compare their relative position in a certain domain (wealth, physical appearance, or income) to others (Locke, 2003; Locke, 2005). Thus, vertical social comparison is based on individual's perceptions of being better-off or worst-off when compared to a benchmark (Buunk & Gibbons, 2007; Yip & Kelly, 2013). Specifically, a downward social comparison occurs when a person compares oneself to others in a disadvantaged position than one's own. Oppositely, an upward social comparison is characterized by a target person that performs better than oneself (a benchmark in a superior condition; Locke, 2003; Locke, 2005). Essential to this research, a common comparison involves socioeconomic attributes such as income, revenues, possessions, and educational achievement (Stellar, Manzo, Kraus, & Keltner, 2012; Belmi & Laurin, 2016; Gong & Sanfey, 2017).

Previous research has indexed social class with subjective measures about individuals' position on a rank (Piff et al., 2010; Piff et al., 2012; Dubois, Rucker, & Galinsky, 2015; Dietze & Knowles, 2016), as well as the persons' income, educational level,

and job status as objective measures (Kraus & Keltner, 2009; Kraus, Piff, & Keltner, 2011; Kraus et al., 2012; Belmi & Laurin, 2016). In both subjective and objective socioeconomic assessments, consumers are aware about their position in a social rank. However, social comparisons also highlight socioeconomic disparities in society (Cheung & Lucas, 2016; Kraus, Park, & Tan, 2017; Payne, Brown-Iannuzzi, & Hannay, 2017), which may trigger different judgments about how the self and others should behave.

Although previous research on social class and prosocial behavior suggests that low-income people are more generous than high-income ones (Piff et al., 2010; Kraus et al., 2012; Kraus & Callaghan, 2016), income inequality will be more salient when individuals make an upward social comparison (Leigh, Jencks, & Smeeding, 2009; Rucker, Galisnky, & Magee, 2018), increasing their support for wealth redistribution (Fong, 2001; Ordabayeva & Fernandes, 2017; Roth & Wohlfart, 2018). Individuals who make upward comparisons perceive that their gains were more effortful to obtain (Piff & Robinson, 2017) and that others in a superior social position have more resources to donate, assuming that those in an advantaged situation should provide not only more money but also more nonmonetary resources to charity, such as volunteering time. In addition, lower-income people expect higher-income ones to demonstrate virtuous actions because of their privileged hierarchical position (Kraus, Piff, & Keltner, 2009; Kraus et al., 2012; Belmi & Laurin, 2016). This perception that higher-income people are in a privileged position and have resource slack may induce those who make upward social comparison to expect that wealthier others to donate more money and also more time for charity. Formally:

H1: *Individuals making upward social comparison judge that others in a superior socioeconomic condition should donate (a) more money and (b) more time to charity when compared to the self.*

As opposed to the upward comparison, downward social comparisons reduce support for wealth redistribution (McCoy & Major, 2007; Fong, 2001; Ordabayeva & Fernandes, 2017; Davidai, 2018). Although social comparison increases inequality perception, being in a superior social position may not foster prosocial behavior. Higher orientation toward agency over communion shapes the rationalization that high-status people do not need to provide monetary resources to others in a poorer situation (Côté, House, & Willer, 2015; Dubois, Rucker, & Galinsky, 2015; Han, Lalwani, & Duhachek, 2017). High economic inequality reduces the generosity of those in an upper social position because being in a superior situation in a highly unequal scenario makes people believe that resources rightfully belong to them (Côté, House, & Willer, 2015). Moreover, greater inequality induces the concern among those in a superior position to maintain their privileged position, which will inhibit higher monetary donations toward charity (Van Doesum, Tybur, & Van Lange, 2017).

Conversely, under high inequality, there is evidence that individuals in a superior socioeconomic position are more likely to volunteer their time (Macchia & Whillians, 2019; Schmukle, Korndörfer, & Egloff, 2019). Schmukle, Korndörfer, and Egloff (2019) argue that wealthier individuals want to maintain their social position and therefore do not donate more money when compared to others with fewer resources, but volunteer more to compensate their lack of financial generosity. Previous research shows that nonmonetary donations can be viewed as the result of donors doing moral actions or a community-based engagement (Jones, 2006; Liu & Aaker, 2008; MacDonnell & White, 2015). Volunteering time derives higher levels of warm glow than giving money because of the increased effort involved in the social action for this type of donation (Brown, Meer, & Willians, 2018). Therefore, time donations offer a good opportunity for those in a superior socioeconomic condition to act morally given heightened inequality. Thus, when making a downward social comparison, individuals will donate more time compared to others in an inferior social position. More formally:

H2: *Individuals making downward social comparison judge that (a) they do not need to donate more money, but (b) they should donate more time to charity when compared to others in an inferior socioeconomic condition.*

Donation Attribution Responsibility and Spare Money Perception

Since inequality is perceived as unfair for those in an inferior position (Chow & Galak, 2012), socioeconomic comparisons make lower-class individuals expect higher-income ones to redistribute their resources (Newman, Johnston, & Lown, 2015; Van Doesum, Tybur, & Van Lange, 2017). Therefore, those in a lower-income situation will pass to those in a privileged hierarchical state higher responsibility of virtuous actions (Kraus, Piff, & Keltner, 2009; Kraus et al., 2012; Belmi & Laurin, 2016). This responsibility is not only related to monetary donations, but also includes any type of prosocial behavior, such as nonmonetary actions. This perception increases the attributed responsibility of others in a superior social position to donate not only more money, but also more nonmonetary resources.

Regarding monetary resources, consumers infer that others in a higher position have more left-over resources to redistribute (Berman et al., 2020). Precisely, consumers overestimate how increases in income could generate supplementary spare money (Berman et al., 2016), and therefore associate other individuals' revenues with donation obligations, in which others with a superior socioeconomic status should donate more given their higher resource slack. In addition, when consumers are in a lower socioeconomic position they tend to make relative analysis of individuals' possessions and revenues, taking into account whether their gains are lower than others' revenues (Solberg et al., 2002; Haisley, Mostafa, & Loewenstein, 2008; Cheung & Lucas, 2016). This rationalization increases people negative self-evaluations about their overall condition and lead them to perceive that they have fewer

resources, generating an extra burden when compared to those in a superior socioeconomic position (Kraus & Park, 2014). This awareness of lower-income individuals about their overall position in relation to others makes them judge that those in a higher socioeconomic situation have not only more responsibility for doing more for others, but also that they have more spare money. Formally:

H3: *Donation attribution responsibility to others (vs. to the self) will be higher for those making upward social comparison, impacting judgments about (a) monetary and (b) time donations.*

Conversely, when those making downward social comparisons be aware of their superior situation, a hierarchy evaluation raises their perceived inequality and the sense of power over those under unprivileged situation (Dubois, Rucker, & Galinski, 2015; Han, Lalwani, & Duhachek, 2017; Hackel & Zaki, 2018). The empowerment of being in a superior position increases downward self-responsibility to do more for others, making them attribute monetary and time donation as a higher to themselves.

Although those in a superior socioeconomic position attribute monetary donation as higher to themselves, they may not fulfill these attributions. Oppositely to lower-class individuals who are focused on their social context and on the relation with near others, those making downward comparisons emphasize internal goals given their standing in society (Kraus et al., 2012; Santos, Varnum, & Grossmann, 2017). They will also perceive that their added revenues are tied to their expenses, which results in the feeling of being strapped for cash (Berman et al., 2020). As a result, the expectation that those who make downward social comparisons should donate more money will not be attended because these consumers will consider their own budget and not their social position in the social hierarchy when deciding

how much to give for charity. Therefore, we predict that while donation attribution responsibility explains downwards' intention to donate more money and more time, spare money perception explains why these individuals do not effectively donate more money. More formally:

H4: *Donation attribution responsibility to the self (vs. to others) will be higher for those making a downward social comparison, impacting judgments about (a) monetary and (b) time donations; (c) Spare money perception explains why those making a downward social comparison do not donate money compared to others in an inferior social position.*

Overall, the predictions about the impact of social comparison on prosocial actions emerge from research on social inequality, hierarchy, and social dominance (Dubois, Rucker, & Galinsky, 2015; Starmans, Sheskin, & Bloom, 2017; Hackel & Zaki, 2018), expectations about wealthy redistribution (Newman, Johnston, & Lown, 2015), perceptions about consumers' spare resources (Berman et al., 2016; Berman et al., 2020), and prosocial behaviors of high and low-income people (Côté, House, & Willer, 2015; Kraus & Callaghan, 2016; Korndörfer, Egloff, & Schmukle, 2015; Whillans, Caruso, & Dunn, 2017). Individuals' beliefs about redistribution are closely related to their meritocracy beliefs (McCoy & Major, 2007; Côté, House, & Willer, 2015; Davidai, 2018). Therefore, we predict that consumers with high and low levels of meritocratic beliefs may appreciate differently how much money they and others should donate when making social comparisons.

Social Comparison, Meritocratic Beliefs, and Monetary Donations

Meritocratic beliefs can be understood as the notion that hard work is a path to obtain success (Son Hing et al., 2011; Zimmerman & Reyna, 2013); the view that individuals in a higher socioeconomic position are more deserving when contrasted to those in low-status situation (McCoy & Major, 2007; Davidai, 2018). Likewise, as meritocratic belief is a system-justifying ideology associated with the legitimization of hierarchies, it is also used to explain why some people have a prosperous life while others live in a poverty situation (Son Hing et al., 2011; Côté, House, & Willer, 2015).

Consistent with research on social dominance, which shows that holding a power position in a hierarchy-enhancing environment decreases positive behaviors toward subordinate social groups (De Oliveira, Guimond, & Dambrun, 2012), high meritocratic beliefs can reduce support for redistribution given inequalities of wealth, and, thus, lead higher-income individuals to be less generous (Winterich & Chang, 2014; Côté, House, & Willer, 2015). Precisely, individuals may be triggered by the need to sustain social order and the sensitivity toward a status-maintenance goal (Starmans, Sheskin, & Bloom, 2017; Kim, Park, & Dubois, 2018), a rightful manner to discern individual characteristics and to demonstrate one's superiority over others (Ordabayeva & Fernandes, 2018) and to justify the system (Son Hing et al., 2011). Thus, these individuals tend to accept and prefer inequality. Since meritocracy beliefs induce individuals to be more favorable to inequality, sensitive to status maintenance, and supportive of social dominance, heightened meritocratic beliefs may equalize prosocial behavior between self-other perspectives.

In contrast, when individuals enact a sense of justice toward socioeconomic positions, those in a higher-class help poorer others given their hardship may not be of their own causing (Galak & Chow, 2019), while those in a lower-class become more supportive to

redistribution (Rucker, Galinsky, & Magee 2018). For instance, when income inequality is described as the rich making more than the poor, high-class individuals may be favorable to the wealth redistribution (Chow & Galak, 2012). Since low meritocratic belief elicits a sense of duty to consumers making a downward comparison and of unfairness among those making upward comparison, it may increase self-other differences in donations. Formally:

H5: *Under low meritocratic beliefs, those making a downward social comparison will donate more compared to others in an inferior social position (H5a), while those making an upward social comparison will judge that others in a wealthier position should donate more (H5b).*

Conversely, under upward social comparison individuals believe that success may not be a result of hard work, but they tend to attribute poverty and wealth to exogenous causes, such as social system failures, poor educational opportunities, and lack of government policies (Cozzarelli, Wilkinson, & Tagler, 2001; Davidai, 2018). Hence, the upward socioeconomic comparison will emphasize the unfairness of inequality (Leigh, Jencks, & Smeeding, 2009; Chow & Galak, 2012; Rucker, Galisnky, & Magee, 2018), highlighting that being in a superior socioeconomic position may not be a result of meritocracy and deservingness. Therefore, when people are making an upward social comparison and have low meritocratic beliefs, they will expect others in a superior position to donate more money for charity.

However, an upward position is not always directly associated with lower meritocracy beliefs. Solt et al. (2016) have demonstrated that people under lower-class position in a high inequality scenario believe that hard work allows them to get ahead in their life. Thus, even when people are under lower socioeconomic position, a high meritocratic belief may equalize perceptions about monetary donation between themselves and others in a

higher socioeconomic position, making individuals ponder no differences between self-other monetary requests. Therefore, we propose that:

H6: Under high meritocratic beliefs, individuals will assign no self-other differences in donations when making downward social comparison (H6a) and upward social comparison (H6b).

METHOD

To manipulate the social comparison and match the evaluative perspective conditions, we adapted the procedures from Piff et al. (2010), see also Piff et al. (2012). Precisely, while in the Piff and colleagues manipulate socioeconomic status by asking participants to compare themselves to people that are above or below them in the social ladder, here participants were strictly allocated to a specific socioeconomic position to make the social comparison explicit. For this purpose, participants in the upward social comparison were allocated to a lower-social class position in the social ladder and compared themselves to upper-class individuals. Participants in the downward social comparison were allocated to a higher-social class position in the social ladder and compared themselves to lower-class individuals. In the control condition, participants were allocated to the middle-social class position in the social ladder and compared themselves to others in the same socioeconomic group. In Studies 1A, 4, and 5, respondents' annual household income was used to allocate participants to the social comparison manipulation conditions. In Studies 1B, 2 and 3, respondents were randomly allocated to the social comparison manipulation conditions, regardless of their household income. Respondents were then allocated to evaluative perspective conditions. In the self-evaluative perspective, they were asked to report how much they should donate for a specific charity organization. In the other-evaluative perspective, they were asked how much others in a superior, in an inferior, or in the same condition than themselves should donate depending on their social comparison condition. We also applied two different charitable appeals asking for respondents' donations of monetary and time resources. Congruent with previous research from Goenka and Osselaer (2019) and Kim (2014) that discuss the differences between the emphasis of charitable requests, while using an appeal from UNICEF (adapted from Duclos & Barasch, 2014; Studies 1B, 3, and 4) we

make salient redistributive causes focusing on the promotion of welfare, by using an appeal from Habitat for Humanity (adapted from Han, Lalwani, & Duhachek, 2017; Studies 1A, 2, and 5) we make salient humanitarian causes focusing on justice and equality. Study 1 shows the interaction between social comparison and evaluative perspective on monetary donations.

Study 1: Social Comparison and Judgments about Monetary Donations

Study 1 tested the prediction that when the context highlights an upward social comparison, individuals would be more likely to assign higher monetary donations for others in a wealthier position (H1a). We also predicted that under a downward social comparison, there would be no differences of evaluative perspective on monetary donations (H2a). To test these predictions, we report two experiments. Study 1A manipulated social comparison using participants' household income to allocate them into the social comparison scenarios. Study 1B randomly allocated respondents to all experimental conditions. We also used two different charitable appeals to our donation requests, one from UNICEF to make salient redistributive causes and another from Habitat for Humanity to make salient humanitarian causes.

Study 1A

Participants and design. This study employed a 3 (social comparison: upward vs. downward vs. control) by 2 (evaluative perspective: self vs. other) between-subjects experimental design. The sample was composed by two hundred and four participants from Amazon Mechanical Turk (MTurk; M_{age} = 34.91, SD = 10.87; 50% female). Participants were assigned to one of the three social comparison conditions based on their annual household

income. They were also randomly allocated to one of the two evaluative perspective conditions.

Procedure. As described previously, to manipulate social comparison and match the evaluative perspective conditions, we adapted the procedures from Piff et al. (2010), see also Piff et al. (2012). Precisely, in this study participants allocation to each social comparison condition was based on their annual household income, where lower-income individuals (with income lower than $48,000) were allocated to the upward social comparison condition, middle-income individuals (with income between $48,000 and $72,000) were allocated to the control condition, and upper-income individuals (with income greater than $72,000) were allocated to the downward social comparison condition[1]. Thus, they read the following scenario: "Think in a ladder representing people distribution in your country. As presented in the figure below you are in an inferior (vs. in a superior vs. in the same) position than others in your social circle. Specifically, you are in a worst-off (vs. the best off vs. the same-off) position compared to those who have the most (vs. least vs. same) money, most (vs. least vs. same) education, and the most (vs. least vs. same) respected jobs. In particular, we'd like you to think about YOUR POSITION regarding THESE PEOPLE. Precisely, think about how these people are different from you in relation to income, educational background, and employment status, as the figure shows."

In the same page, participants were exposed to a figure representing their allocated condition (Figure 1: panel A represents upward social comparison, panel B represents downward social comparison, and panel C represents control condition). As manipulation reinforcement, on a separate screen, respondents were asked to write down a vivid description of their lives in the provided condition compared to others in a superior (for those in the

[1] Based on the US Census, where about 33% of households receive less than $40,000; 33% receive between $40,000 and $85,000; and 33% receive more than $85,000. For further details about US income distribution: <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk>.

upward condition), inferior (for those in the downward condition) and in the same (for those in the control condition) socioeconomic situation, in a 10-lines text. After that, participants were randomly designated to one of the two evaluative perspective conditions (see Appendix A for details regarding the procedures of all studies).

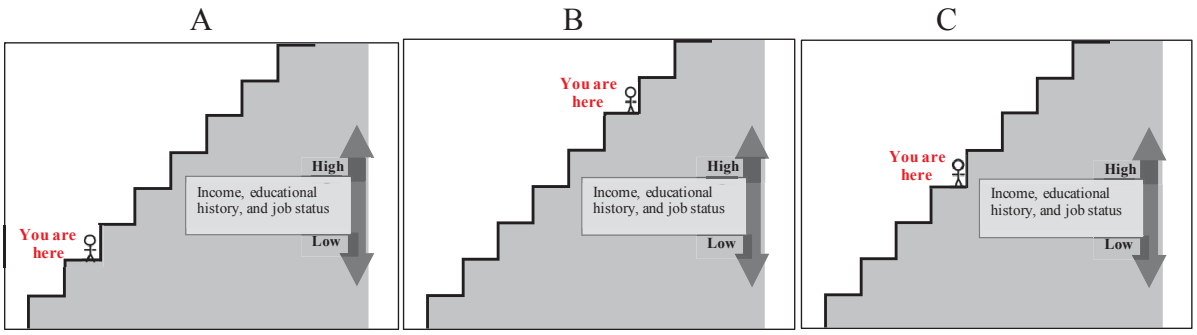


Figure 1 - Social comparison manipulation

Monetary donation. As an unrelated study, participants were exposed to an appeal from the Habitat for Humanity, a non-profit institution that provides residence for poor people (adapted from Han, Lalwani, & Duhachek, 2017; see Appendix C). Precisely, we asked participants how much would be donated to the Habitat for Humanity from the self-perspective ("How much would you donate for this cause?") versus from the other-perspective ("How much do you think others in (a superior / an inferior / the same) condition than you would donate for this cause?"), using a slider scale ranging from $0 to $100. When respondents were assigned to the other-evaluative perspective, they read a question detailing the specific description about others' social position. Therefore, within the other-evaluative perspective condition, the upwards judged others in a superior condition; the downwards judged others in an inferior condition, and; the control judged others in the same condition. Within the self-perspective condition, participants informed their own donation behavior.

Measured Variables. Social comparison manipulation check was adapted from Locke (2005). Respondents were asked "With regard to your social position**,** to what extent others in your social circle were:" in a 7-point scale varying from 1 = "Worse off than you" to 7 = "Better off than you." Finally, respondents' demographic data was collected.

Results

Manipulation check. To check for the impact of the social comparison manipulation, we conducted an ANOVA with the social comparison and evaluative perspective as the two factors and the social position as the dependent variable. As expected, there was only a main effect of social comparison (F (2, 198) = 21.505; $p < .001$; $\eta_p^2 = .178$). Participants in an upward social comparison perceived that others were in a better-off social position (M = 5.28, SD = 1.44) compared to those in both downward social comparison (M = 3.86, SD = 1.48) and control condition (M = 4.58, SD = .82). Specifically, there was a difference between upward and control (F (1, 137) = 10.085; $p = .002$; $\eta_p^2 = .069$), downward and control (F (1, 111) = 10.069; $p = .002$; $\eta_p^2 = .083$), and between upward and downward social comparison conditions (F (1, 148) = 35.365; $p < .001$; $\eta_p^2 = .193$). Similar results were found when the objective income was the dependent variable, with a main effect of social comparison on household income (F (2, 198) = 176.095; $p < .001$; $\eta_p^2 = .640$). Respondents in the downward social comparison reported higher income (M = 109,523.79; SD = 44,086.75) when compared to both upward social comparison (M = 30,232.73; SD = 10,224.21) and control condition (M = 59,769.23; SD = 7,663.55).

Monetary Donation. We conducted a two-way ANOVA with the three social comparison conditions (upward vs. downward vs. control) and the two evaluative perspective conditions (self vs. other) as predictors of monetary donation. The results showed no main

effect of social comparison (F (2, 198) = 2.032; p = .134) and a main effect of evaluative perspective (F (1,198) = 13.603; p < .001; ηp^2 = .064). The expected interaction term was significant (F (2,198) = 8.033; p < .001; ηp^2 = .075; see Figure 2).

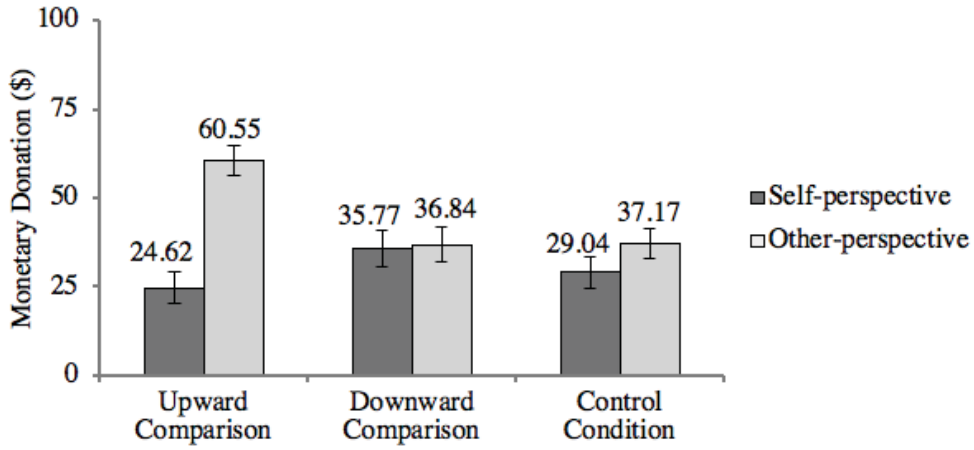


Figure 2 - Monetary Donation (Study 1A)

As expected, within the upward social comparison, participants assigned to others a higher monetary donation (M = 60.55, SD = 28.90) than to themselves (M = 24.62, SD = 29.53; F (1, 198) = 35.680; p < .001; ηp^2 = .153). However, within both downward (M_{self} = 35.77, SD = 31.53; M_{other} = 36.84, SD = 30.56; F (1,198) = .22; p = .881) and control conditions (M_{self} = 29.04, SD = 23.18; M_{other} = 37.17, SD = 22.50; F (1,198) = 1.056; p = .305) there were no differences between self-other evaluative perspective. An analysis within the self-other conditions showed that, within the self-evaluative perspective there were no differences in monetary donation between social comparison conditions (F (2, 198) = 1.384; p = .253). Within the other-evaluative perspective, monetary donation was higher in upward than in downward comparisons or control condition (F (2,198) = 9.174; p < .001, η_p^2 = .085). Furthermore, within the other-evaluative perspective, results showed significant differences between upward and downward social comparisons (p = .001) and between upward and control conditions (p = .002); but not between downward and control conditions (p = 1). This

data gives initial support to the hypotheses H1a and H2a. In Study 1B these findings were replicated with a random allocation for all experimental conditions and by exposing participants to an appeal of a different non-profit institution asking for a monetary donation. In addition, we measure consumers' beliefs about donation obligations more directly by measuring how much they and others should (instead of would) donate for charity.

Study 1B

Participants and design. This study employed a 3 (social comparison: upward vs. downward vs. control) by 2 (evaluative perspective: self vs. other) between-subjects experimental design. The sample was composed by one hundred eighty-five undergraduate students (M_{age} = 21.51, SD = 4.89; 54.1% male).

Procedures. Social comparison manipulation was again adapted from Piff et al. (2010) and Piff et al. (2012), but instead of asking for the respondents' annual household income to allocate them under a specific social comparison condition, in Study 1B participants were directly and randomly assigned to one of the three social comparison conditions, regardless of their household income. Participants were also randomly allocated to one of the two evaluative perspective conditions.

Monetary Donation. Right after the social comparison manipulation, participants were exposed to an appeal from UNICEF, a fictitious charity advertisement collecting money for humanitarian causes (adapted from Duclos & Barasch, 2014; see Appendix C). Based on the evaluative perspective conditions, participants were randomly asked how much should be donated to UNICEF from the self-perspective ("How much should you donate for this cause today?") versus from the other-perspective ("How much do you think others in (a superior / an inferior / the same) condition than you should donate for this cause today?"), using a slider

scale ranging from $0 to $100. Similar to Study 1A, social comparison manipulation check was adapted from Locke (2005). We also measured respondent's household income.

Results

Manipulation check. We conducted an ANOVA with social comparison and evaluative perspective as the two factors and the social position as the dependent variable. As expected, there was only a main effect of social comparison (F (2, 179) = 31.33; $p < .001$; η_p^2 = .26). Participants in upward social comparison perceived that others were in a better-off social position (M = 4.80, SD = 1.0) when compared to those in downward (M = 3.55, SD = .94) and control conditions (M = 3.95, SD = .69). Similar analysis with respondents' household income as the dependent variable showed no effects of either social comparison (F (2, 179) = 1.252; p = .288) neither of evaluative perspective (F (1, 179) = .099; p = .754) on respondent's household income. The interaction was also non-significant (F (2, 179) = .060; p = .942). Together, these results show that the effect is not driven by individuals' socioeconomic position, but by the participants' random allocation in the social comparison manipulating conditions.

Monetary Donation. We conducted a two-way ANOVA with the three social comparison conditions (upward vs. downward vs. control) and the two evaluative perspective conditions (self vs. other) as predictors of monetary donation. The results showed a significant main effect both for social comparison (F (2, 179) = 4.99; p = .008; η_p^2 = .053) and for evaluative perspective (F (1, 179) = 8.05; p = .005; η_p^2 = .043). The expected interaction was significant (F (2, 179) = 11.51; $p < .001$; η_p^2 = .114; see Figure 3).

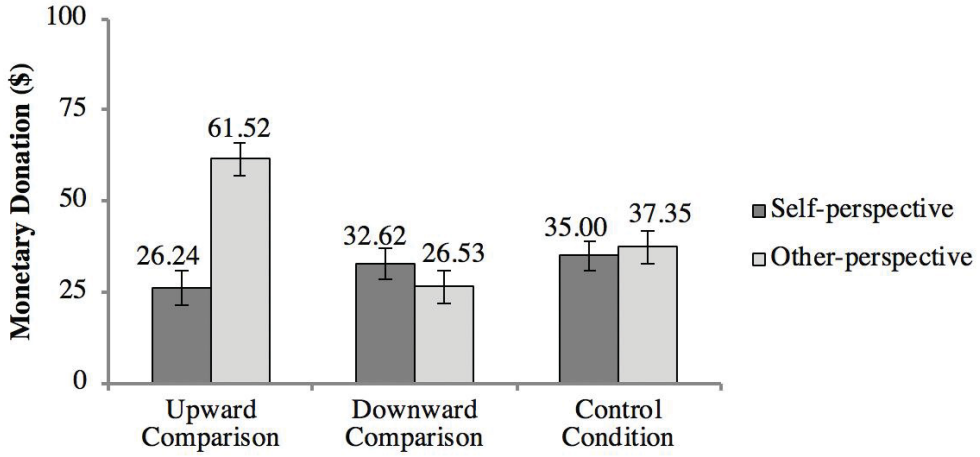


Figure 3 - Monetary Donation (Study 1B)

As expected, within the upward social comparison participants assigned to others a higher monetary donation (M = 61.52, SD = 23.27) than to themselves (M = 26.24, SD = 21.27; F (1, 179) = 29.44; $p < .001$; $\eta_p^2 = .141$). However, within the downward (M_{self} = 32.62, SD = 28.12; M_{other} = 26.53, SD = 22.51; F (1,179) = .93; p = .336) and control conditions (M_{self} = 35, SD = 29.02; M_{other} = 37.35, SD = 25.28; F (1,179) = .13; p = .715) there were no differences between evaluative perspective conditions. An analysis within self-other conditions shows that, within the self-evaluative perspective, there were no differences in monetary donation between social comparison conditions (F (2, 179) = .956; p = .386). Within the other-evaluative perspective, monetary donation was higher in the upward than in the downward comparison or control condition (F (2,179) = 15.52; $p < .001$, $\eta_p^2 = .148$). Furthermore, the results were significant to other-evaluative perspective when contrasted upward and downward comparisons ($p < .001$) and when contrasted upward and control conditions (p = .001); but not between downward and control conditions (p = .285). These findings replicate Study 1A, giving additional support to hypotheses H1a and H1b.

Discussion

Studies 1A and 1B provide initial support to hypotheses H1a and H2a. Individuals who make an upward social comparison judge that their upper-class counterparts should donate more money to charity. However, those who make a downward social comparison judge no differences on monetary donations between self-other evaluative perspective. Study 2 examines the role of donation attribution responsibility to explain why social comparison differently impacts judgments about self-other monetary donation.

Study 2: The Mediating Role of Donation Attribution Responsibility

The goal of Study 2 was to test the mediating impact of donation attribution responsibility on monetary donations. We predicted that those in an upward (vs. a downward) social comparison would attribute higher monetary donation responsibility to others (vs. to themselves; H3a and H4a).

Method

Participants and design. This study employed a 3 (social comparison: upward vs. downward vs. control) by 2 (evaluative perspective: self vs. other) between-subjects experimental design. The sample was composed by two hundred forty undergraduate students (M_{age} = 22.98, SD = 1.79; 55.4% male). Participants were randomly allocated to one of the six experimental conditions.

Procedure. Social comparison manipulation followed the procedures of Study 1B, by randomly allocating participants to one of the three social comparison conditions regardless of

their previous household income. After that, participants were also randomly designated to one of the two evaluative perspective conditions.

Monetary Donation. As an unrelated study and to measure our dependent variable, participants were exposed to the same appeal from the Habitat for Humanity used in Study 1A, a non-profit institution providing residence for poor people (adapted from Han, Lalwani, & Duhachek, 2017; see Appendix B). Based on the evaluative perspective conditions, participants were asked how much should be donated to the Habitat for Humanity from the self-perspective ("How much should you donate for this cause?") versus from the other-perspective ("How much do you think others in (a superior / an inferior / the same) condition than you should donate for this cause?"), using a slider scale ranging from $0 to $100.

Measured Variables. The impact of donation attribution responsibility was measured from the self-evaluative perspective by asking participants "Please, point out how much you attribute as being yours the responsibility to donate money for this cause:" versus from the other-evaluative perspective by asking participants "Please, point out how much you attribute as being to a person who is in (a superior / an inferior / the same) condition than you the responsibility to donate money for this cause:", both using a 7-point scale, ranging from 1 (not at all) to 7 (very much). The same manipulation check for social comparison of studies 1A and 1B was used. Finally, participants' demographic data was collected.

Results

Manipulation check. We conducted an ANOVA with social comparison and evaluative perspective as the two factors and the social position as the dependent variable. As expected, there was only a main effect of social comparison (F (2, 234) = 3.969; p = .026; η_p^2 = .031). Participants in the upward social comparison (M = 3.83, SD = 1.38) and control

condition (M = 3.93, SD = 1.29) perceived others in a better-off social position when compared to those under downward social comparison (M = 3.45, SD = 1.05). Specifically, there was a difference between downward and control conditions (F (1, 160) = 7.863; p = .006; η_p^2 = .047). The difference between upward and downward social comparisons (F (1, 146) = 3.799; p = .053) and between upward social comparison and control condition was not significant (F (1, 162) = .381; p = 538). Similar analysis with respondents' household income as the dependent variable showed no main effects or interactions (Fs < 1).

Monetary Donation. We conducted a two-way ANOVA with the three social comparison conditions (upward vs. downward vs. control) and the two evaluative perspective conditions (self vs. other) as predictors of monetary donation. The results showed a non-significant main effect of social comparison (F (2, 234) = 1.846; p = .160), a main effect of evaluative perspective (F (1, 234) = 5.862; p = .016; η_p^2 = .024), and a significant interaction (F (2, 234) = 7.693; p = .001; η_p^2 = .062; see Figure 4).

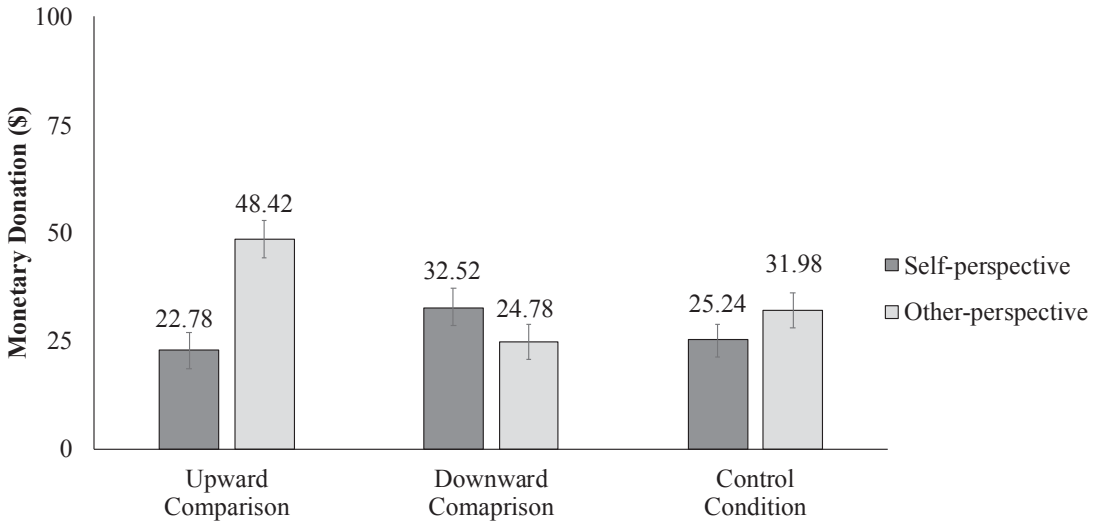


Figure 4 - Monetary Donation (Study 2)

As expected, participants in the upward social comparison assigned to others a higher monetary donation (M = 48.42, SD = 31.47) than to themselves (M = 22.78, SD = 25.42; F (1, 234) = 18.337; $p < .001$; $\eta_p^2 = .07=3$). However, within both downward (M_{self}= 32.52, SD = 24.60; M_{other} = 24.78, SD = 24.53; F (1, 234) = 1.610; p = .206) and control conditions (M_{self}= 25.24, SD = 23.98; M_{other} = 31.98, SD = 26.57; F (1, 234) = 1.484; p = .224) there were no differences between evaluative perspective conditions.

An analysis within each evaluative perspective condition shows that within the self-evaluative perspective there were no differences in monetary donation between social comparison conditions (F (2, 234) = 1.345; p = .263). Within other-evaluative perspective, monetary donation was higher in the upward than in the downward comparison or control conditions (F (2,234) = 8.169; $p < .001$, $\eta_p^2 = .065$). Furthermore, to other-evaluative perspective the results show significant differences between upward and downward comparisons ($p < .001$) and between upward and control conditions (p = .020). The difference between downward and control conditions was not significant (p = .646). Overall, these results replicate previous findings for H1a and H2a.

Attribution Responsibility of Monetary Donations. Similar analysis was conducted to test the impact of social comparison and evaluative perspective on attribution responsibility of monetary donations. The results showed no main effects of social comparison (F (2, 234) = .706; p = .495) neither for evaluative perspective (F (1, 234) = 1.151; p = .285). The expected interaction term was significant (F (2, 234) = 6.934; p = .001; $\eta_p^2 = .056$; see Figure 5).

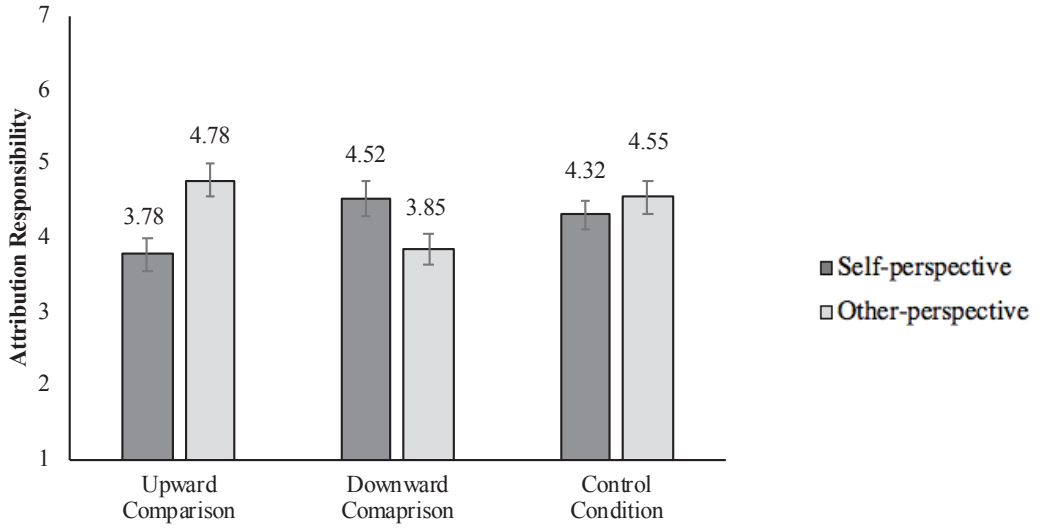


Figure 5 – Attribution Responsibility (Study 2)

Within the upward social comparison, individuals attributed higher responsibility to others (M = 4.78, SD = 1.40) than to themselves (M = 3.78, SD = 1.42; F (1, 234) = 10.241; p = .002; η_p^2 = .042). Contrary, those under downward comparison attributed higher responsibility to themselves (M = 4.52, SD = 1.03) than to others (M = 3.85, SD = 1.40; F (1, 234) = 4.300; p = .039; η_p^2 = .018). Within control condition there were no differences between evaluative perspective conditions on attribution responsibility (M_{self} = 4.32, SD = 1.35; M_{other} = 4.55, SD = 1.50; F (1, 234) = .632; p = .427).

An analysis within self-other conditions showed that, within self-evaluative perspective there were no differences between upward (M = 3.78, SD = 1.42) and downward comparisons (M = 4.52, SD = 1.03; p = .066), between upward (M = 3.78, SD = 1.42) and control conditions (M = 4.32, SD = 1.35; p = .183), and between downward (M = 4.52, SD = 1.03) and control conditions (M = 4.32, SD = 1.03, p = 1.00; F (1, 234) = 3.015; p = .051).

Within other-evaluative perspective, individuals attributed higher responsibility in upward (M = 4.78, SD = 1.40) than in downward comparisons (M = 3.85, SD = 1.40) or control condition (M = 4.55, SD = 1.50; F (2, 234) = 4.894; p = .008, η_p^2 = .040). More

specifically, within other-evaluative perspective there was a significant difference between upward and downward social comparisons (p = .010), and there were no differences both between downward and control conditions (p = .067) and between upward and control conditions (p = 1.00).

The Mediating Role of Attribution Responsibility. To further investigate the mediating impact of attribution responsibility on monetary donations (H3a and H4a), we used the PROCESS macro on SPSS (model 8; 10,000 samples; Hayes, 2018). Social comparison was coded as 0 = upward and 1 = downward. For evaluative perspective, the codes were 0 = other and 1 = self.

The results show a significant interaction of social comparison and evaluative perspective on attribution responsibility (β = 1.6643, CI = .8021 to 2.5265), and that attribution responsibility was significantly associated with a monetary donation (β = 5.5354, CI = 2.3834 to 8.6873). Additionally, there was a significant interaction between social comparison and evaluative perspective on monetary donation (β = 24.1640, CI = 6.7403 to 41.5876). The expected indirect effect of attribution responsibility on monetary donation was positive (β = 9.2124, CI = 3.1155 to 17.3532). The conditional indirect effects show a positive indirect effect of attribution responsibility on monetary donation for the self-evaluative perspective (β = 4.0970, CI = .7867 to 8.6816) and a negative indirect effect of attribution responsibility on monetary donation for the other-evaluative perspective (β = -5.1153, CI = -10.4142 to -1.2169).

These results show that those making an upward (vs. a downward) social comparison will delegate to others (vs. to themselves) a higher attribution responsibility for monetary donations (H3a and H4a). We also show that those in an inferior socioeconomic position expect others to donate more money for charity (H1a) and that although people making a downward social comparison attribute higher responsibility to themselves, they perceive no

differences between self-other monetary donations (H2a). Precisely, although downwards attribute responsibility to themselves as expected for those in a lower socioeconomic position ($M_{upward*other}$ = 4.78, SD = 1.40, $M_{downward*self}$ = 4.52, SD = 1.03; t (67) = -.881; p = .381), they effectively donate less than expected by those making an upward social comparison ($M_{upward*other}$ = 48.42, SD = 31.47, $M_{downward*self}$ = 32.52, SD = 24.60; t (67) = -2.324; p = .023).

Discussion

Study 2 provides additional evidence for hypotheses H1a and H2a and demonstrates the mediating impact of donation attribution responsibility on monetary donations, results that support hypotheses H3a and H4a. In the next study, we investigated the mediating influence of attribution responsibility on time donations.

Study 3: Social Comparison and Time Donations

Study 3 tested the prediction that people under upward social comparison judge that others in a superior socioeconomic condition should donate more time for charity (H1b). Oppositely, those making a downward social comparison will judge time donations as higher to the self (H2b). It also tested the evidence that donation attribution responsibility mediates this proposed effect (H3b and H4b).

Method

Participants and Design. This study employed a 3 (social comparison: upward vs. downward vs. control) by 2 (evaluative perspective: self vs. other) between-subjects experimental design. The final data was composed by two hundred and eight undergraduate students (M_{age} = 23.31, SD = 5.8; 51.4% female). Participants were randomly allocated to one of the six experimental conditions.

Procedure. Social comparison manipulation followed the same procedure as described in Studies 1B and 2.

Time Donation. As an unrelated study and to measure our dependent variable, participants were exposed to an appeal from UNICEF, a philanthropic charity advertisement requesting donations to help children with disabilities. Precisely, participants were instructed as follows "Next you will see an advertisement from UNICEF, a non-profit institution that promotes the defense of children's right. UNICEF is launching its campaign for the second half of this year." Following, individuals saw an advisement from UNICEF (see Appendix D). In a subsequent screen, they were inquired about their obligation to help UNICEF from the self-perspective ("How much time should you weekly donate for this cause?") versus from the other-perspective ("How much time do you think others in (a superior / an inferior / the same) condition than you should weekly donate for this cause?"), using a slider scale ranging from 0 to 150 minutes per week.

Measured Variables. Similar to the procedure of the previous studies, participants responded to the social comparison manipulation check from Locke (2005). We also measured the impact of donation attribution responsibility from the self-perspective by asking participants "Please, point out how much you attribute as being yours the responsibility to donate for this cause:" versus from the other-perspective by asking participants "Please, point

out how much you attribute as being to a person who is in (a superior / an inferior / the same) condition than you the responsibility to donate for this cause:", using a 7-point scale, ranging from 1 (not at all) to 7 (very much). Finally, demographic data was collected.

Results

Manipulation check. To check for the impact of the social comparison manipulation, we conducted an ANOVA with the social comparison and evaluative perspective as the two factors and the social position as the dependent variable. As expected, there was only a main effect of social comparison (F (2, 202) = 7.079; p = .001; η_p^2 = .065). Participants in the upward social comparison perceived others in a better-off social position (M = 4.12, SD = 1.10) when compared to those either in the downward social comparison (M = 3.42, SD = 1.05) or in the control condition (M = 3.77, SD = 1.06). Specifically, there was a difference between the upward and control conditions (F (1, 133) = 3.822; p = .05; η_p^2 = .028) and between the upward and the downward social comparisons (F (1, 135) = 14.080; p < .000; η_p^2 = .094). The difference between the downward and control conditions was marginal (F (1, 136) = 3.659; p = .073; η_p^2 = .024). Similar analysis with the respondents' household income as the dependent variable showed no main effects or interaction (Fs < 1).

Time Donation. To test the hypotheses H1b and H2b, we conducted a two-way ANOVA to assess the impact of social comparison and evaluative perspective on time donation. The results showed a non-significant main effect of social comparison (F (2, 202) = 1.952; p = .145), nor for evaluative perspective condition (F (1, 202) = .802; p = .372). The interaction term was significant (F (2, 202) = 8.579; p < .001; η_p^2 = .078; see Figure 6).

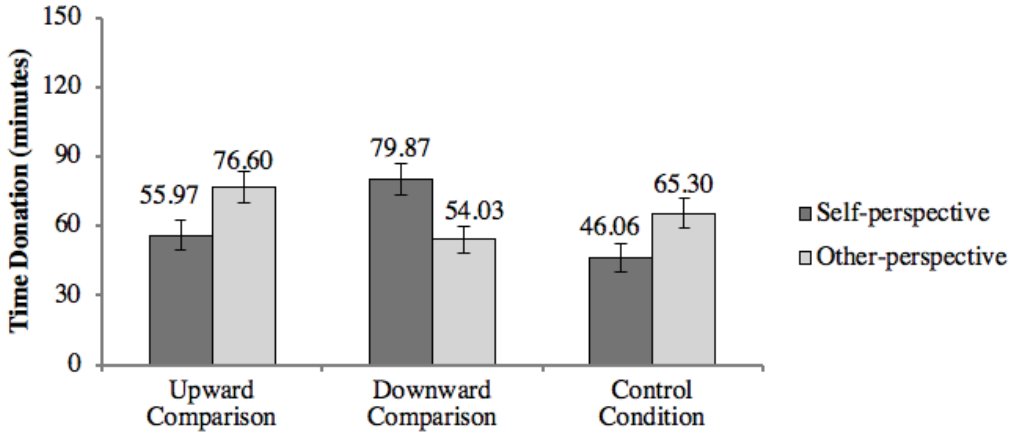


Figure 6 - Time Donation (Study 3)

As expected, within the upward social comparison participants assigned higher time donations to others (M = 76.6, SD = 40.47) than to themselves (M = 55.97, SD = 34.48; F (1, 202) = 5.113; p = .025; η_p^2 = .025). The same pattern was found within the control condition, where time donations were higher to others (M = 65.3, SD = 43.76) than to themselves (M = 46.03, SD = 30.75; F (1, 202) = 4.514; p = .035; η_p^2 = .022). However, within the downward social comparison time donation was higher to themselves (M = 79.87. SD = 44.55) than to others (M = 54.03, SD = 31.69; F (1, 202) = 8.256; p = .004; η_p^2 = .039).

An analysis within self-evaluative perspective showed differences in time donation between social comparison conditions (F (2, 202) = 7.011; p = .001; η_p^2 = .065). Specifically, time donation was higher in the downward comparison, which differs from both upward comparison (p = .030) and control condition (p = .001). There were no differences when upward and control conditions were contradsted (p = .793). Within other-evaluative perspective, time donation was higher in the upward than in downward social comparison or control condition (F (2,202) = 3.225; p = .042, η_p^2 = .031). Results show a significant difference between upward and downward social comparisons (p = .036). There were no differences when contrasted upward comparison and control condition (p = .679), neither when contrasted downward comparison and control condition (p = .611).

Together, these results confirm hypotheses H1b and H2b. When individuals make an upward social comparison, they judge that others in a wealthier condition should donate not only more money, but also more time for charity. When individuals make a downward social comparison, they judge they should donate more time, but not more money, when compared to others in an inferior socioeconomic position.

***Attribution Responsibility of Time Donations*.** We conducted similar analysis to test the impact of social comparison and evaluative perspective on attribution responsibility of time donations. The results showed no main effect of social comparison (F (2, 202) = .068; p = .935), neither for evaluative perspective (F (1, 202 = .047; p = .829). The expected interaction was significant (F (2, 202) = 5.423; p = .005; η_p^2 = .051; see Figure 7).

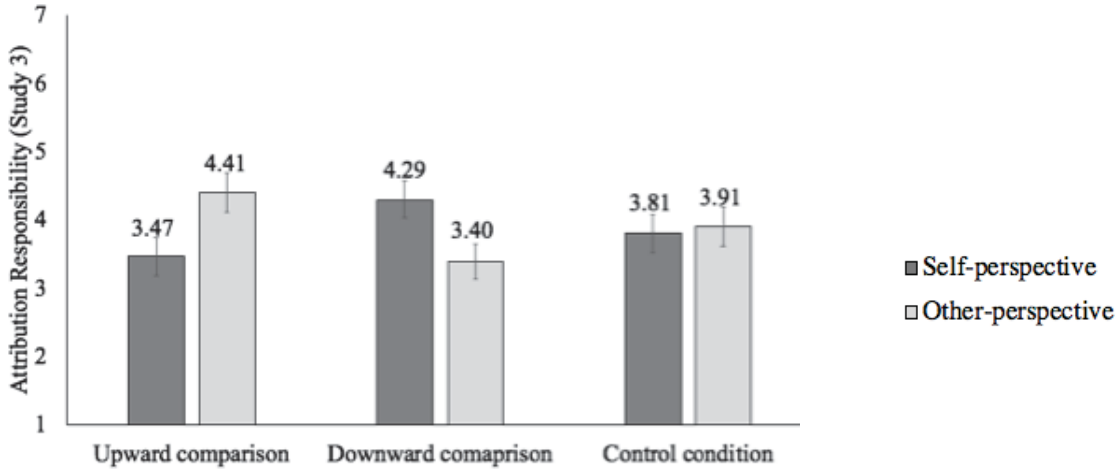


Figure 7 – Attribution Responsibility (Study 3)

Within the upward comparison, individuals attribute higher responsibility to others (M = 4.41, SD = 1.75) than to themselves (M = 3.47, SD = 1.40; F (1, 202) = 5.580; p = .019; η_p^2 = .027). The opposite pattern was observed within the downward comparison, where participants attributed higher responsibility to themselves (M = 4.29, SD = 1.66) than to others (M = 3.40, SD = 1.60; F (1, 202) = 5.227; p = .023; η_p^2 = .025). There were no

differences within control condition between self- (M = 3.81, SD = 1.60) and other-evaluative perspectives (M = 3.91, SD = 1.76; F (1, 202) = .070; p = .792).

An analysis within self-other perspective showed differences in attribution responsibility within other-evaluative perspective for the upward social comparison (M = 4.41, SD = 1.76), for the downward social comparison (M = 3.40, SD = 1.60), and for the control condition (M = 3.91, SD = 1.75; F (2, 202) = 3.314; p = .035, η_p^2 = .033). Contrasts showed a significant difference only between upward and downward comparisons (p = .029). Within self-perspective, there were no differences between attributions responsibility in the upward comparison (M = 3.47, SD = 1.40), in the downward comparison (M = 4.29, SD = 1.66), and in the control condition (M = 3.81, SD = 1.60; F (2, 202) = 2.113; p = .123).

The Mediating Role of Attribution Responsibility. To further investigate the mediating impact of attribution responsibility on time donation, we used the PROCESS macro on SPSS (model 8; 10,000 samples; Hayes, 2018). Social comparison was coded as 0 = downward and 1 = upward. For the evaluative perspective, the codes were 0 = other and 1 = self. We found that the interaction between social comparison and evaluative perspective significantly influenced attribution responsibility (β = -1.8244, CI = -2.91 to - .74), and that attribution responsibility was significantly associated with time donation (β = 11.844, CI = 8.38 to 15.31). Additionally, there was a significant interaction between social comparison and evaluative perspective on time donation (β = -24.89, CI = -47.77 to -2.01). Most importantly, we found a negative indirect effect of attribution responsibility on time donation (β = -21.6079, CI = -37.69 to -9.24).

Conditional indirect effect under the upward comparison showed a positive effect of attribution responsibility on time donation for other-evaluative perspective (β = 11.9182, CI = 3.24 to 23.55) and a negative conditional indirect effect of attribution responsibility on time donation for self-evaluative perspective (β = -9.6897, CI = -19.82 to -1.35). However, the

conditional indirect effect under downward comparison showed a positive effect of attribution responsibility on time donation for self-evaluative perspective (β = 9.6897, CI = .95 to 19.02) and a negative conditional indirect effect of attribution responsibility on time donation for other-evaluative perspective (β = -11.9182, CI = -22.82 to -2.45). Together, these results provide support to the hypotheses H3b and H4b.

Discussion

Overall, Study 3 makes the following contributions. First, it supports the hypotheses H1b and H2b and adds to the results of previous studies by showing that when individuals make an upward social comparison, they will judge that others in a wealthier condition should donate not only more money, but also more time for charity. However, those making a downward social comparison do not think they should donate more money compared to others in an inferior position (Studies 1A, 1B, and 2), but they are willing to donate more time. Second, it shows the underlying role of attribution responsibility under requests of time donations, corroborating the hypotheses H3b and H4b. For those making an upward social comparison, the attribution responsibility increases the amount of time that others should donate. Within downward social comparison, the attribution responsibility increases the amount of time that they should donate.

Besides these contributions, a question remains unclear. People making downward social comparison attribute more responsibility for monetary donations, but they do not actually donate more money. Following previous research from Berman et al. (2019), we suggest that consumers will make misjudgments about individuals' revenues, where those in an upward social comparison may realize that others in a superior socioeconomic position have a higher amount of spare resources, while those making a downward social comparison

perceive no differences between self-other spare resources. Therefore, Study 4 examines the role of spare money to explain this differential pattern for those making social comparisons.

Study 4: The Mediating Role of Spare Money

Study 4 has two main goals. First, it provides further evidences to the previous findings for hypotheses H1a and H2a. Second, it tests the mediating role of spare money to explain the differential pattern between attribution responsibility and monetary donation when people are making social comparisons (H4c).

Method

Participants and design. This study employed a 3 (social comparison: upward vs. downward vs. control) by 2 (evaluative perspective: self vs. other) between-subjects experimental design. The sample was composed by four hundred nineteen respondents from MTurk and Prolific platforms (M_{age} = 33.78, SD = 17.35; 50.8% male). Participants were assigned to one of the three social comparison conditions based on their annual household income. They were also randomly allocated to one of the two evaluative perspective conditions.

Procedure. Social comparison manipulation followed the procedures of Study 1A, by allocating participants to one of the social comparison conditions based on their annual household income. After that, participants were also randomly allocated to one of the two evaluative perspective conditions.

Monetary Donation. As an unrelated study and to measure our dependent variable, participants were exposed to the same appeal from UNICEF used in Study 1B, a fictitious

charity advertisement collecting money for humanitarian causes (adapted from Duclos & Barasch, 2014; see Appendix C). Based on the evaluative perspective conditions, participants were randomly asked how much should be donated to UNICEF from the self-perspective ("How much should you donate for this cause today?") versus from the other-perspective ("How much do you think others in (a superior / an inferior / the same) condition than you should donate for this cause today?"), using a slider scale ranging from $0 to $100.

Measured Variables. The impact of spare money was measured from the self-evaluative perspective by asking participants "Please, in a scale varying from 0% to 100%, how much spare money do you have compared to others in (a superior / an inferior / the same) position?" versus from the other-evaluative perspective by asking participants "Please, in a scale varying from 0% to 100%, how much spare money others have compared to you in (a superior / an inferior / the same) position?", both using a slider scale ranging from 0% to 100% of respondents' annual household income. The same manipulation check for social comparison of previous studies was used and participants' demographic data was collected.

Results

Manipulation check. We conducted an ANOVA with social comparison and evaluative perspective as the two factors and the social position as the dependent variable. As expected, there was only a main effect of social comparison (F (2, 424) = 55.406; $p < .001$; $\eta_p^2 = .207$). Participants in the upward social comparison (M = 4.86, SD = 1.41) perceived others in a better-off social position when compared to those under both control condition (M = 4.56, SD = 1.05) and downward social comparison (M = 3.26, SD = 1.40). Specifically, there were differences between downward and control conditions (F (1, 268) = 75.735; $p < .001$; $\eta_p^2 = .220$), between upward and downward social comparisons (F (1, 271) = 85.945; p

< .001; η_p^2 = .241), and between upward social comparison and control condition (F (1, 309) = 4.573; p = .033; η_p^2 = .015). Similar results were found for objective income as the dependent variable (F (2, 424) = 332.435; p < .001; η_p^2 = .611). Respondents in the downward social comparison reported higher income (M = 117,730.82; SD = 53,406.04) when contrasted both with upward social comparison (M = 26,795.07; SD = 11,138.12) and control condition (M = 58,366.65; SD = 7,181.88).

Monetary Donation. We conducted a two-way ANOVA with the three social comparison conditions (upward vs. downward vs. control) and the two evaluative perspective conditions (self vs. other) as predictors of monetary donation. The results showed a non-significant main effect of social comparison (F (2, 424) = .948; p = .388) and a main effect of evaluative perspective (F (1, 424) = 11.614; p = .001; η_p^2 = .027). The expected interaction was significant (F (2, 424) = 16.900; p < .001; η_p^2 = .074; see Figure 8).

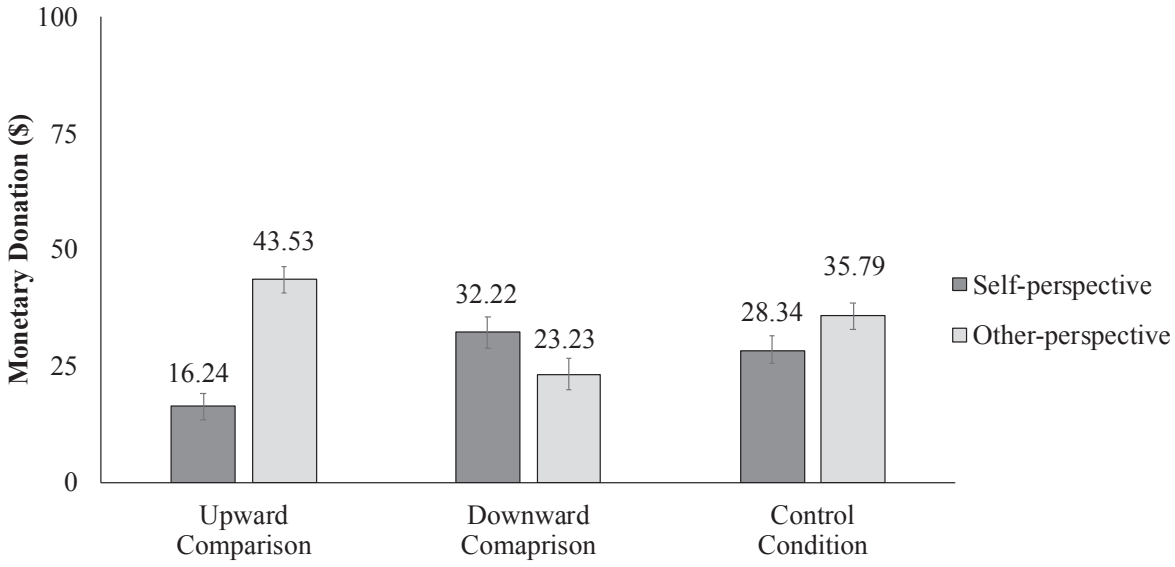
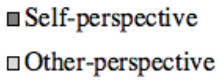


Figure 8 - Monetary Donation (Study 4)

As expected, participants in the upward social comparison assigned to others a higher monetary donation (M = 43.53, SD = 30.73) than to themselves (M = 16.24, SD =

14.94; F (1, 424) = 44.004; $p < .001$; $\eta_p^2 = .094$). However, within both downward (M_{self} = 32.22, SD = 26.23; M_{other} = 23.23, SD = 21.85; F (1, 424) = 3.536; $p = .071$) and control conditions (M_{self} = 28.34, SD = 25.97; M_{other} = 35.79, SD = 30.55; F (1, 424) = 3.209; p = .085) there were no differences between evaluative perspective conditions.

An analysis within each evaluative perspective condition shows that within the self-evaluative perspective there were differences in monetary donation between social comparison conditions (F (2, 424) = 7.426; $p = .001$, $\eta_p^2 = .034$). Precisely, the results showed a significant difference between upward and control conditions ($p = .013$) and between downward and upward comparisons ($p = .001$). The difference between downward and control was not significant ($p = 1.00$).



Within other-evaluative perspective, monetary donation was higher in the upward than in the downward comparisons or control condition (F (2, 424) = 10.283; $p < .001$, η_p^2 = .046). Furthermore, to other-evaluative perspective, the results show significant differences between upward and downward comparisons ($p < .001$) and between downward and control conditions ($p = .015$). The difference between upward and control conditions was not significant ($p = .173$). Although results showed a difference on self-evaluative perspective between those making upward and downward social comparisons, there were found no differences between self-other perspectives within people making a downward comparison. Thus, these results replicate previous findings for H1a and H2a.

Spare Money. We conducted similar analysis to test the impact of social comparison and evaluative perspective on spare money. The results showed no main effect of social comparison (F (2, 424) = 1.398; $p = .248$) and a main effect of evaluative perspective (F (1, 424) = 22.087; $p < .001$; $\eta_p^2 = .050$). The expected interaction was significant (F (2, 424) = 7.875; $p < .001$; $\eta_p^2 = .036$; see Figure 9).

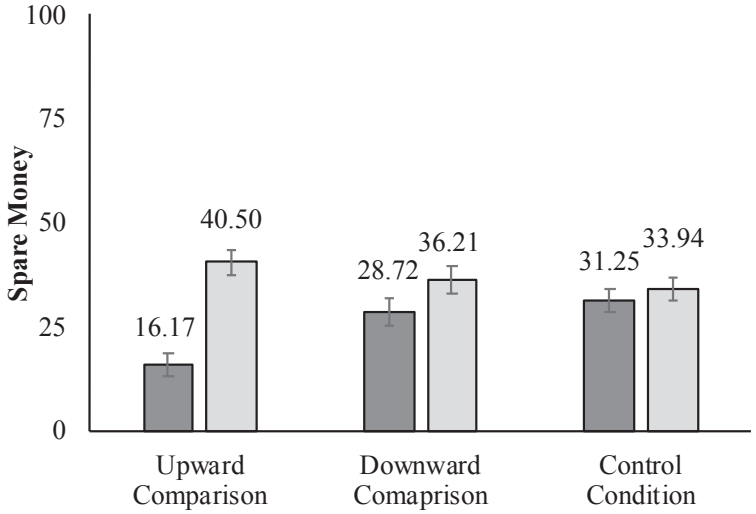


Figure 9 – Spare Money (Study 4)

Within the upward social comparison, individuals assigned higher spare money to others (M = 40.50, SD = 26.44) than to themselves (M = 16.17, SD = 13.74; F (1, 424) = 37.028; $p < .001$; $\eta_p^2 = .080$). Within those both under downward social comparison (M_{self} = 28.72, SD = 25.06; M_{other} = 36.21, SD = 27.48; F (1, 424) = 2.599; $p = .108$) and control condition (M_{self} = 31.25, SD = 26.85; M_{other} = 33.94, SD = 28.72; F (1, 424) = .4143; p = .506) there were no differences between evaluative perspective conditions.

An analysis within self-other conditions showed that, within other-evaluative perspective there were no differences between upward (M = 40.50, SD = 26.44) and downward comparisons (M = 36.21, SD = 27.48; $p = .976$), between upward (M = 40.50, SD = 26.44) and control conditions (M = 33.94, SD = 28.72; $p = .292$), and between downward (M = 36.21, SD = 27.48) and control conditions (M = 33.94, SD = 28.72, p = 1.00; F (2, 424) = 1.411; $p = .245$).

Within self-evaluative perspective, individuals in upward comparison assigned lower spare money to themselves (M = 16.17, SD = 13.74) than those in downward comparison (M = 28.72, SD = 25.06) or control condition (M = 31.25, SD = 26.85; F (2, 424) = 7.729; p = .001, $\eta_p^2 = .035$). More specifically, within self-evaluative perspective there was a significant

difference between upward comparison and control condition (p = .001), a difference between downward and upward comparisons (p = .011), and there were no differences between downward and control conditions (p = 1.00).

The Mediating Role of Spare Resources. To further investigate the mediating impact of spare money on monetary donations (H4c), we used the PROCESS macro on SPSS (model 8; 10,000 samples; Hayes, 2018). Social comparison was coded as 0 = upward and 1 = downward. For evaluative perspective, the codes were 0 = other and 1 = self. The results show a significant interaction of social comparison and evaluative perspective on spare money (β = 16.8395, CI = 5.5733 to 28.1057), and that spare money was significantly associated with a monetary donation (β = .3201, CI = .2025 to .4378). Additionally, there was a significant interaction between social comparison and evaluative perspective on monetary donation (β = 30.8791, CI = 19.6176 to 42.1405). The expected indirect effect of spare money was positive (β = 5.3910, CI = 1.4739 to 10.2021). More importantly, conditional indirect effects show a positive indirect effect of spare money on monetary donation amount for the self-evaluative perspective (β = 4.0177, CI = 1.5714 to 7.1212) and there was a non-significant conditional indirect effect of spare money on monetary donation for the other-evaluative perspective (β = -1.3732, CI = -4.7583 to 1.6331). Together, these results provide support to our hypothesis H4c.

Discussion

Study 4 provides further evidence for hypothesis H1a and H2a. It also shows that the perceptions about spare money explain the judgments about monetary donation (hypothesis H4c). Precisely, the results allow us to comprehend the differences found between attribution responsibility and donations intentions when people are making social comparisons. Those

making an upward social comparison attribute donations responsibility as higher to others in a wealthier position (hypothesis H3a, Study 2), also judging that these individuals have a higher amount of spare money, leading them to expect higher monetary donations to those in a wealthier socioeconomic position. Contrary, although people making a downward social comparison attribute higher responsibility to give money to the self (hypothesis H4a, Study 2), they perceive no differences between self-other spare monetary resources, impacting their judgments about self-other monetary donations. Because downwards judge they do not have more spare money compared to others in an inferior position, they are not willing to donate more money.

Besides these findings, there are situations where those in a wealthier socioeconomic position donate more money (Korndörfer, Egloff, & Schmukle, 2015; Whillans, Caruso, & Dunn, 2017). When social comparison is highlighted, these social differences may also impact perceptions of fairness and justice about resource distribution (Newman, Johnston, & Lown, 2015; Cheung & Lucas, 2016; Payne, Brown-Iannuzzi, & Hannay, 2017; Roth & Wohlfart, 2018). Therefore, we investigate whether meritocracy beliefs influence the impact of social comparison on self-other judgments about monetary donations. We suggest that when individuals making a downward comparison have lower levels of meritocratic beliefs, they will give more money for charity when compared to others in an inferior social position. Study 5 tests this prediction.

Study 5: The Influence of Meritocratic Beliefs on Monetary Donations

Study 5 tests hypothesis H5 and H6, about how meritocratic beliefs interact with social comparison and evaluative perspective to explain monetary donations. We propose that individuals making a downward social comparison will increase their monetary donation

when they have low meritocratic beliefs, whereas they will assign no differences between self-other evaluative perspective when they have high meritocratic perceptions. We also propose that people making an upward social comparison will assign no self-other differences under high meritocratic perceptions, whereas they will assign monetary donations as higher to others when they have low meritocratic beliefs.

Method

Participants and design. This study employed a 3 (social comparison: upward vs. downward vs. control) by 2 (evaluative perspective: self vs. other) between-subjects experimental design. The sample was composed by two hundred and forty-two MTurk workers (M_{age} = 38.36, SD = 12.17; 61.30% female).

Procedure. We followed the same procedure of Studies 1A and 4, using respondents' household income to allocate them to one of the three social comparison manipulating conditions (Piff et al., 2010; Piff et al., 2012). Participants were also randomly designated to one of the two evaluative perspective conditions.

Monetary Donation. As an unrelated study and to measure our dependent variable, participants were exposed to the same appeal as Study 1A from the Habitat for Humanity (adapted from Han, Lalwani, & Duhachek, 2017; see Appendix B). Based on the evaluative perspective conditions, respondents were asked how much should be donated to Habitat for Humanity from the self-perspective ("How much should you donate for this cause?") versus from the other-perspective ("How much do you think others in (a superior / an inferior / the same) condition than you should donate for this cause?"), using a slider scale ranging from $0 to $100.

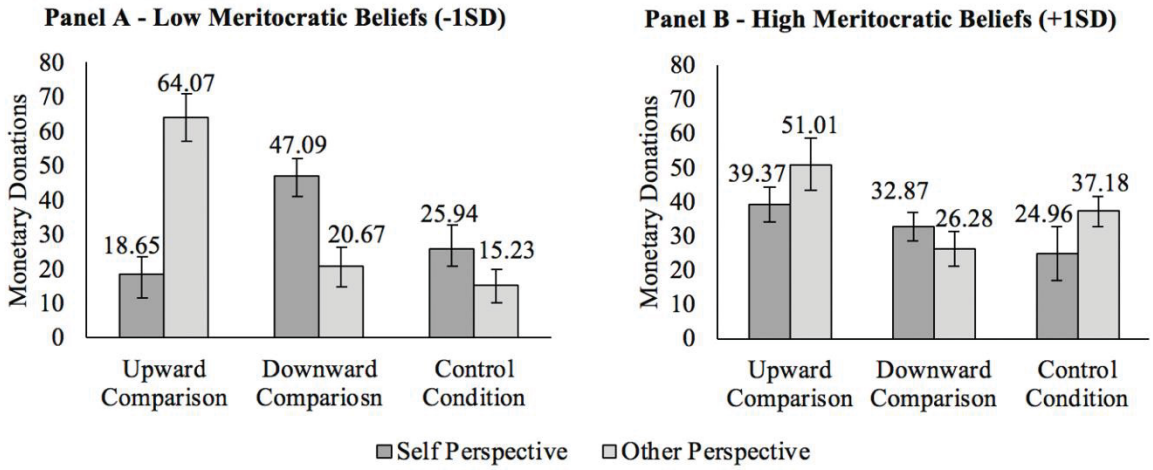
Measured Variables. Participants were asked ten items about their meritocratic beliefs using a scale from Day and Fiske (2017), in a 7-point scale, varying from 1 (strongly disagree) to 7 (strongly agree) (e.g.: Anyone who is willing and able to work hard has a good chance of succeeding; A person can take almost all responsibility for their standing in society; In our society, a person is deserving of almost every success; $\alpha = .94$; $M = 4.14$, SD = 1.35). We observed no-effect of social comparison manipulation on meritocracy beliefs ($p = .33$). Finally, participants answered the social comparison manipulation check from Locke (2005) and they also informed their demographics.

Results

Manipulation check. To check for the impact of social comparison manipulation, we conducted an ANOVA with the social comparison and evaluative perspective as the two factors and the social position as the dependent variable. As expected, there was only a main effect of social comparison (F (2, 236) = 72.308; $p < .001$; $\eta_p^2 = .380$). Participants in upward social comparison perceived others in a higher social position ($M = 5.34$, SD = 1.36) compared to those under both downward social comparison ($M = 3.05$, SD = 1.30) or control condition ($M = 4.17$, SD = 1.09). Specifically, there was a difference between upward comparison and control condition (F (1, 157) = 33.389; $p < .001$; $\eta_p^2 = .175$), between downward comparison and control condition (F (1, 143) = 32.515; $p < .001$; $\eta_p^2 = .185$), and between upward and downward social comparison (F (1, 148) = 35.365; $p < .001$; $\eta_p^2 = .193$). Similar results were found for objective income as dependent variable (F (2, 236) = 220.320; $p < .001$; $\eta_p^2 = .651$). Respondents in downward comparison reported higher income (M = 111,109.88; SD = 42,983.61) when contrasted both with upward comparison ($M = 29,333.04$; SD = 10,520,48) and control condition ($M = 59,190.73$; SD = 7,363.41).

Moderation Analysis. To test hypothesis H5 and H6, we conducted an ANOVA to assess the impact of social comparison (upward vs. downward vs. control) and evaluative perspective (self vs. other) as between-subjects' factors and a mean-centered meritocracy belief as a continuous predictor of monetary donation. Results showed a significant effect of social comparison (F (2, 230) = 8.81; $p < .01$; $\eta_p^2 = .071$), a significant two-way interaction between social comparison and evaluative perspective (F (2, 230) = 15.66; $p < .01$; $\eta_p^2 = .120$), and a significant three-way interaction (F (2, 230) = 7.39; $p < .01$; $\eta_p^2 = .060$).

We distilled this three-way interaction in two two-way interactions between social comparison and evaluative perspective at 1SD below and 1SD above the mean of meritocracy beliefs. As predicted, the interaction between social comparison and evaluative perspective was significant among individuals who score lower than 1SD in meritocracy beliefs (F (2, 230) = 22.97; $p < .01$; $\eta_p^2 = .167$), but not among individuals who score higher than 1SD in meritocracy beliefs (F (2, 230) = 1.58; $p = .21$). Figure 10 shows the interaction between social comparison and evaluative perspective at lower (Panel A) and higher (Panel B) meritocratic beliefs on monetary donations.



*Means and standard errors were obtained from the regression estimates.

Figure 10 - Monetary donations as a function of social comparison (upward vs. downward vs. control), evaluative perspective (self vs. other), and meritocratic beliefs* (Study 5)

Among low meritocratic beliefs (-1SD), individuals assign higher monetary donations to others than to themselves within the upward social comparison (F (1, 234) = 37.61; $p < .01$; $\eta_p^2 = .139$), while they assign higher monetary donations to themselves than to others within the downward social comparison (F (1, 234) = 9.07; $p < .01$; $\eta_p^2 = .037$). We found no differences on monetary donations within the control condition (F (1, 234) = 0.74; $p = .39$). Among high meritocratic beliefs (+1SD), individuals assign no differences on monetary donations between self-other evaluative perspective within the upward social comparison (F (1, 234) = 2.08; $p = .15$), the downward social comparison (F (1, 234) = 0.55; $p = .46$), and nor within the control condition (F (1, 234) = 1.32; $p = .25$). Specifically, floodlight analysis showed that among individuals who scored 5.17 (+ 0.76 SD) or higher on meritocratic beliefs, the interaction between social comparison and evaluative perspective was not significant. These findings provide support to hypothesis H5a, H5b, H6a, and H6b.

Discussion

Study 5 demonstrates the influence of meritocratic beliefs in the relation between social comparison and self-other perspective on monetary donations (hypothesis H5 and H6), using a well-established measure of meritocratic beliefs from Day and Fiske (2017). Relevant to this study, we observe no main effect of social comparisons on meritocratic beliefs. People who made downward social comparisons were as likely to believe in meritocracy as those who made upward social comparisons.

Previous research shows that meritocratic beliefs are developed over time and are also inferred based on power or social mobility perceptions (McCoy & Major, 2007; Day & Fisk, 2017; Davidai, 2018). Therefore, our results add to these previous findings by showing that when people are under downward social comparison and have lower beliefs in meritocracy, they will make higher monetary donations for charity. We also contribute by showing when people making an upward comparison will reduce the self-other disparity regarding monetary donations.

GENERAL DISCUSSION

This research shows that disparities in the social hierarchy highlighted by socioeconomic comparison impact consumers' judgments about how they and others should behave. When consumers compare themselves to others in a superior socioeconomic position (those making an upward social comparison), they delegate to others the attribution responsibility to redistribute monetary and time resources, increasing the amount that those in a privileged socioeconomic position should donate. Although those who compare themselves to others in an inferior socioeconomic position (people making a downward social comparison) attribute higher responsibility of donations to themselves, they do not actually give more money, and are only more willing to give more time. This disparity in monetary donation is explained by spare money perceptions. While those making an upward comparison consider that others have more spare money, those making a downward comparison will perceive no differences between self-other spare money, leading to no differences in monetary donation. We also demonstrate that people making downward social comparison donate more money only when they perceive low meritocratic beliefs.

Given these findings and to our knowledge, this research is the first to (a) show how upward and downward social comparisons impact self-other judgments about monetary and time donations; (b) demonstrate that attribution responsibility mediates how social comparison influences individuals' judgments about self-other prosocial actions; (c) establish that spare money perceptions mediate judgments about self and others monetary donations when people are making social comparisons, and; (d) show that meritocratic beliefs predict judgments about self-other prosocial behavior.

Theoretical and Practical Implications

Previous research shows that income inequality is associated with stronger social comparison behavior (Cheung & Lucas, 2016). Given that inequality has increased to remarkable levels in the recent years (Lakner & Milanovic, 2016; Newman, Johnston, & Lown, 2015; Payne, Brown-Iannuzzi, & Hannay 2017; Hackel & Zaki, 2018), consumers are making socioeconomic comparisons more often. By investigating how people form judgments regarding the appropriate level of monetary and time donations under socioeconomic comparisons, we contribute to the research on social comparison, prosocial behavior, monetary and time donations, spare resources, and meritocratic beliefs.

From the social comparison spectrum, there is evidence that inequality perception increases wealth redistribution supported by those in the lower social position (Starmans, Sheskin, & Bloom, 2017), while higher-income people do not share the same perception and want to maintain social hierarchy differences (Schmukle, Korndörfer, & Egloff, 2019). Our work helps to integrate some of these findings by establishing that those making a downward social comparison increase the predisposition for time donations over monetary donations in places with higher inequality.

Previous research shows a mixed effect of social class on altruism. Specifically, while some studies demonstrate that low-income individuals are more generous, trustful to others' behavior, and tend to give more support both for charity and for third-part strangers (Piff et al., 2010; Kraus et al., 2012; Dietze & Knowles, 2016; Gong & Sanfey, 2017; Van Doesum, Tybur, & Van Lange, 2017), others show some circumstances where high-income individuals are more prosocial (Korndörfer, Egloff, & Schmukle, 2015; Whillans, Caruso, & Dunn, 2017). From the perspective of socioeconomic comparison, we demonstrate that when

people see themselves in a determined position in the socioeconomic hierarchy, it will influence the judgments about virtuous behavior beyond the objective social class position.

Our research also contributes to the literature that investigates the differences between time and monetary donations (Bryant, Jeon-Slaughter, Kang, & Tax, 2003; Kim, 2014; Brown, Meer, & Williams, 2018) by examining how individuals make assumptions about giving time or money in social comparison situations. We show that consumers with higher income are more willing to give time instead of money. Moreover, our findings offer a better understanding of the association between social comparison and generosity of those in a superior social status, showing why income inequality shapes prosocial behavior among those with more capacity to give. We demonstrate that although those in the downward position attribute higher responsibility to themselves both for monetary and time resources, they do not donate more money compared to others in a lower-income situation, but they perceive more responsibility and effectively donate more time for charity. This discrepancy between attribution responsibility and monetary donation relies on consumers' perceptions of spare resources (Berman et al., 2016; Berman et al., 2020), where those making a downward comparison perceive no differences on spare money between themselves and others in an inferior socioeconomic position. Overall, these results show that those in a more privileged social situation are not indifferent to inequality, but that their contribution to redistribution is not based on monetary resources.

We extend previous findings of the influence of meritocratic beliefs on consumers' preferences and decisions (McCoy & Major, 2007; Son Hing et al., 2011; Côté, House, & Willer, 2015; Davidai, 2018). This work demonstrates that meritocracy influences those in a downward social position to donate more money. We also show further evidence that from the upward comparison perspective, high meritocracy beliefs reduce self-other differences in judgments about monetary donation.

This research brings significant implications and knowledge to charitable and non-profit organizations. In a highly unequal socioeconomic environment, where social disparities are more evident, prosocial actions performed by the wealthy would be particularly relevant, those at downward positions (1) are not making higher monetary donations compared to their upwards counterparts, (2) are willing to donate nonmonetary resources in a higher proportion, and (3) only donate more money when there is low meritocratic awareness. Also, people making an upward social comparison are delegating the responsibility of monetary and nonmonetary prosocial behavior to the wealthier other. As a result, inequality rates could be exacerbated. Possibilities to overcome these barriers may include understanding the profile of potential donors. If the target group is characterized by low meritocratic beliefs (those that are more engaged in social causes), they will probably be more willing to make monetary donations. Then, targeting communication to these potential donors may result in favorable changes to render positive results. Social causes could also benefit more by asking for time donations if potential donors are in the upper social position.

Limitations and Future Research

This research measured prosocial behavior with time and monetary donations requests. However, prosocial activities include a variety of behaviors, such as pro-environmental actions (recycling, choosing green products), helping a stranger, donating food, clothing or other material resources. Future studies could include other donation requests, such as blood, food, clothes or helping others, to test the consistency of our results.

Consumers need to decide not only how much money or time to donate, but also choose a cause for which they wish to contribute. It would be interesting to investigate how social comparison impacts judgments about contributions to different social causes. For

instance, it is unknown if individuals making an upward comparison would attribute a higher responsibility for those in a superior socioeconomic condition to donate more for causes directly associated with the lack of resources (food and shelter or helping children living in poverty areas), as well as to people with other needs, such as cultural and art activities, or taking care of animals. It is also unknown if those in a downward position would feel more responsible to contribute with more money or time to different social causes.

Another avenue for future research is to investigate consumers' judgments about virtuous behavior related to environmental choices. For instance, one of the biggest problems' humanity faces is climate change. How can we motivate wealthy individuals to adopt green technologies and to protect the environment? Often people buy green products due to status concerns (Griskevicius, Tybur, & Van den Bergh, 2010). In addition, the rich often demonstrate altruism for self-enhancement and impression management (Piff & Robinson, 2017). The rich are typically aspired in society. They are viewed as role models. They also have more resources and opportunities to help others. Policy makers may appeal to these motivations of rich individuals to help others to maximize the welfare of all.

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APPENDIX A – MANIPULATION (STUDIES 1 THROUGH 5)

Social Comparison Manipulation (Studies 1 through 5)

STUDY FLOW

1. Consent Term:

Welcome to the research study!

The following information is provided to you as part of the university's program for ensuring that academic research is conducted in a safe and ethical manner. Please read this consent document carefully before you decide to participate in this study.

Purpose of the research study:
This study aims to evaluate an advertisement in a specific situation.

What you will be asked to do in the study:
You will be answering questions pertaining to your consumption behavior in a specific situation.

Time required:
The study will last about 12 minutes.

Risks:
We do not anticipate any risks associated with your participation. You are free to withdraw from further participation at any stage of the survey.

Confidentiality:
Your identity will be kept confidential as required by law. Your name will be separated from your data, and all data will be reported in aggregate form (e.g., averages). Your name or code will not be used in any report.

Voluntary participation:
Your participation in the study is completely voluntary. There is no penalty for not participating.

Right to withdraw from the study:
You have the right to withdraw from the study at any time without consequence.

Whom to contact if you have questions about the study:
Researches information were provided (Name, address, and e-mail).

Whom to contact about your rights in the study:
Information about Business School was provided (name and address)

By clicking the button Next, you are affirming that you have read the informed consent

statement presented above and that you voluntarily agree to participate in the procedure.

( ) I consent, begin the study.
( ) I do not consent, I do not wish to participate.

2. Income collection ***(Applied in studies 1a, 4, and 5. For studies 1b, 2, and 3, participants were randomly allocated to our social comparison manipulation)***

To start this research we want to know some of your demographic data.
Please, what is your yearly family household income? Specifically, what is the sum of the revenue that you and your family members earn in a year?

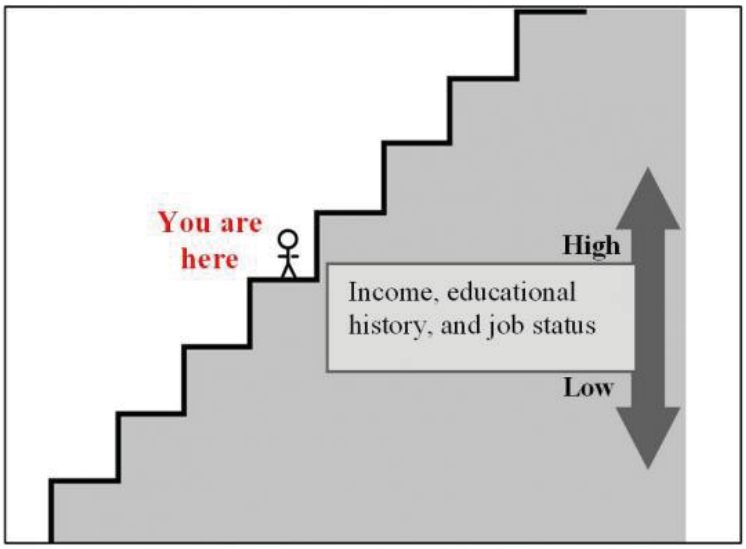
(Enter the numbers rounding up to the next dollar). _____

3. Social Comparison Manipulation

3.1 Control Condition

Please read the following content carefully.

Think in a ladder representing people distribution in your country. As presented in the figure below **you are in the same position than others in your social circle.** Specifically, you are in the same-off position of those who have the same money, the same education, and the same respected jobs. In particular, we'd like you to think about YOUR POSITION regarding THESE PEOPLE. Precisely, think about how these people are different from you in relation to income, educational background, and employment status, as the figure shows.

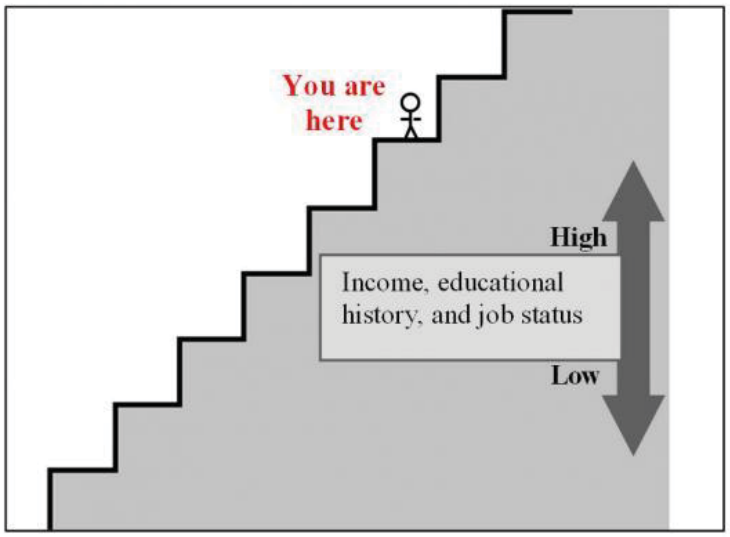


Timing was collected

3.2. Downward Comparison

Please read the following content carefully.

Think in a ladder representing people distribution in your country. As presented in the figure below **you are in a superior position than others in your social circle**. Specifically, you are in the best off position compared to those who have the least money, least education, and the least respected jobs. In particular, we'd like you to think about YOUR POSITION regarding THESE PEOPLE. Precisely, think about how these people are different from you in relation to income, educational background, and employment status, as the figure shows.

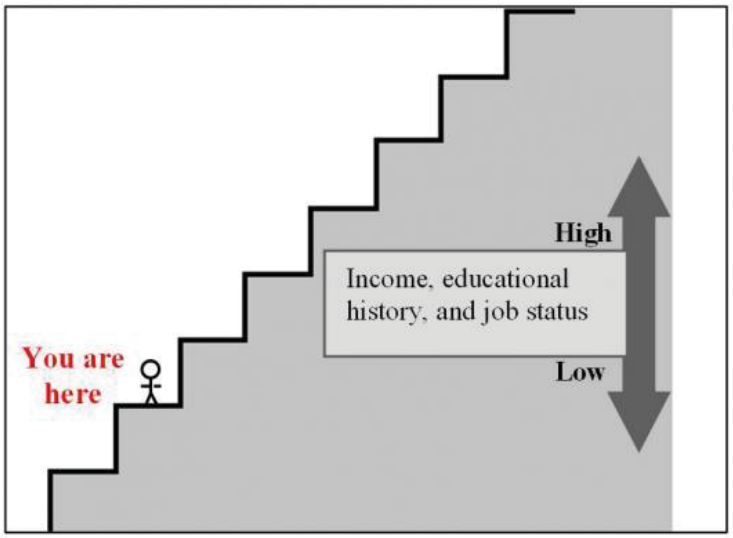


Timing was collected

3.3. Upward Comparison

Please read the following content carefully.

Think in a ladder representing people distribution in your country. As presented in the figure below **you are in an inferior position than others in your social circle**. Specifically, you are in a worst-off position compared to those who have the most money, most education, and the most respected jobs. In particular, we'd like you to think about YOUR POSITION regarding THESE PEOPLE. Precisely, think about how these people are different from you in relation to income, educational background, and employment status, as the figure shows.



Timing was collected

4. Manipulation reinforcement

4.1 Control Condition

Please, now remember **your position** in the ladder and write down a vivid description of how it is to be in the same situation in relation to others individuals. More specifically, what are the things that you can or cannot do or buy? How should you behave? How would your life be like in general lines?

_____
_____
_____

Timing was collected

4.2. Downward Social Comparison

Please, now remember **your position** in the ladder and write down a vivid description of how it is to be in a superior situation in relation to others individuals. More specifically, what are the things that you can or cannot do or buy? How should you behave? How would your life be like in general lines?

_____
_____
_____

Timing was collected

4.3. Upward Social Comparison

Please, now remember **your position** in the ladder and write down a vivid description of how it is to be in an inferior situation in relation to others individuals. More specifically, what are the things that you can or cannot do or buy? How should you behave? How would your life be like in general lines?"

_____
_____
_____

Timing was collected

5. Research Brake

Great. Thanks for your answers to the first project!

Let's now shift gears and move to the second project which is unrelated to the first one.

Please click in "Next" button to continue.

6. Charity' request

Charity request was presented here. See Appendix B through C for further details.

Timing was collected

7. Dependent Variable

Monetary Donation (Studies 1a, 1b, 2, 4, and 5)

Self-Evaluative Perspective

If you were to help Habitat for Humanity with money, **how much money should you donate?**

	0 10 20 30 40 50 60 70 80 90 100
Dollars (XX)	

*The marker was positioned at zero point when respondents saw the slider scale.
**The "XX" value varied according to the respondents' choices on slider scale.

Other-Evaluative Perspective

Control Condition

If a person in the same condition then you were to help Habitat for Humanity with money, **how much money should he/she donate**?

0 10 20 30 40 50 60 70 80 90 100

Dollars (XX) 

*The marker was positioned at zero point when respondents saw the slider scale.
**The "XX" value varied according to the respondents' choices on slider scale.

Downward Comparison

If a person in an inferior condition than you were to help Habitat for Humanity with money, **how much money should he/she donate?**

0 10 20 30 40 50 60 70 80 90 100

Dollars (XX) 

*The marker was positioned at zero point when respondents saw the slider scale.
**The "XX" value varied according to the respondents' choices on slider scale.

Upward Comparison

If a person in a superior condition than you were to help Habitat for Humanity with money, **how much money should he/she donate?**

0 10 20 30 40 50 60 70 80 90 100

Dollars (XX) 

*The marker was positioned at zero point when respondents saw the slider scale.
**The "XX" value varied according to the respondents' choices on slider scale.

Time Donation (Study 3)

Self-Evaluative Perspective

If you were to volunteer your time to help Habitat for Humanity with its activities, **how much time would you donate?**

0 15 30 45 60 75 90 105 120 135 150

Minutes (XX) 

*The marker was positioned at zero point when respondents saw the slider scale.
**The "XX" value varied according to the respondents' choices on slider scale.

Other-Evaluative Perspective

Control Condition

If a person in the same condition than you were to volunteer their time to help Habitat for Humanity with its activities, **how much time would he/she donate?**

0 15 30 45 60 75 90 105 120 135 150

Minutes (XX) 

*The marker was positioned at zero point when respondents saw the slider scale.
**The "XX" value varied according to the respondents' choices on slider scale.

Downward Comparison

If a person in an inferior condition than you were to volunteer their time to help Habitat for Humanity with its activities, **how much time would he/she donate?**

0 15 30 45 60 75 90 105 120 135 150

Minutes (XX) 

*The marker was positioned at zero point when respondents saw the slider scale.
**The "XX" value varied according to the respondents' choices on slider scale.

Upward Comparison

If a person in a superior condition than you were to volunteer their time to help Habitat for Humanity with its activities, **how much time would he/she donate?**

	0 15 30 45 60 75 90 105 120 135 150
Minutes (XX)	

*The marker was positioned at zero point when respondents saw the slider scale.
**The "XX" value varied according to the respondents' choices on slider scale.

8. Research Brake

Thanks for your answers to the previous questions.

We will now ask you some questions about your views on certain topics. Please know that there is no right or wrong answers. We are just interested in your honest opinions.

9. Attention Check

Before we proceed, we have a question about how you're feeling.
Recent research on decision making shows that choices are affected by context. Differences in how people feel, their previous knowledge and experience, and their environment can affect choices. To help us understand how people make decisions, we are interested in information about you. Specifically, we are interested in whether you actually take the time to read the directions; if not, some results may not tell us very much about decision making in the real world. To show that you have read the instructions, please ignore the question below about how you are feeling and instead check only the 'other' option and write 'survey' in the slot. Thank you very much.

Please check all words that describe how you are currently feeling:

Interested ( )
Distressed ( )
Strong ( )
Scared ( )
Enthusiastic ( )
Irritable ( )
Ashamed ( )
Nervous ( )
Attentive ( )
Active ( )

Excited ( )
Upset ( )
Guilty ( )
Hostile ( )
Proud ( )
Alert ( )
Inspired ( )
Determined ( )
Jittery ( )
Afraid ( )
Other ( ) _____

10. Social Comparison Manipulation Check

With regard to your **annual household income,** to what extent others were:

1 - Worse off than you	2	3	4	5	6	7 - Better off than you
( )	( )	( )	( )	( )	( )	( )

11. *Money restriction*

To what extent do you feel that you have a limited amount of money?

1 = Not at all	2	3	4 = Moderately	5	6	7 = Very Much
( )	( )	( )	( )	( )	( )	( )

12. Demographics

Finally, we would like to know some demographic data.

12.1 Gender

Your gender?
( ) Male
( ) Female

12.2Age

Your age? _____

12.3 Job Function

Please, write down your job function: _____

12.4 Monthly Income

What is your monthly family household income?

Under $15,000	2 $15,001 to $25,000	3 $25,001 to 35,000	$35,001 to 50,000	$50,001 to 75,000	$75,001 to 100,000	Over $100,000
( )	( )	( )	( )	( )	( )	( )

12.5 Suggestions

Do you have any comments about this study? _____

MEASUREMENTS

Attribution Responsibility (Studies 2 and 3)

Self-Evaluative Perspective

Please, point out how much you attribute as being yours the responsibility to contribute for this cause:

1 = Not at all	2	3	4 = Moderately	5	6	7 = Very Much
( )	( )	( )	( )	( )	( )	( )

Other-Evaluative Perspective

Control Condition

Please, point out how much you attribute as being to a person who is in the same condition than you the responsibility to contribute for this cause:"

1 = Not at all	2	3	4 = Moderately	5	6	7 = Very Much
( )	( )	( )	( )	( )	( )	( )

Downward Social Comparison

Please, point out how much you attribute as being to a person who is in a superior condition than you the responsibility to contribute for this cause:

1 = Not at all	2	3	4 = Moderately	5	6	7 = Very Much
( )	( )	( )	( )	( )	( )	( )

Upward Social Comparison

Please, point out how much you attribute as being to a person who in an inferior condition than you the responsibility to contribute for this cause:

1 = Not at all	2	3	4 = Moderately	5	6	7 = Very Much
( )	( )	( )	( )	( )	( )	( )

Spare Money (Study 4)

Self-evaluative perspective

Upward Social Comparison

Please, in a scale varying from 0 to 150 minutes, how much **spare time do you have compared to others in a superior position?**

0 15 30 45 60 75 90 105 120 135 150

Weekly minutes (XX)	

*The marker was positioned at zero point when respondents saw the slider scale.
**The "XX" value varied according to the respondents' choices on slider scale.

Downward Social Comparison

Please, in a scale varying from 0 to 150 minutes, how much **spare time do you have compared to others in an inferior position**?

0 15 30 45 60 75 90 105 120 135 150

Weekly minutes (XX)	

*The marker was positioned at zero point when respondents saw the slider scale.
**The "XX" value varied according to the respondents' choices on slider scale.

Control Condition

Please, in a scale varying from 0 to 150 minutes, how much **spare time do you have compared to others in the same condition**?

0 15 30 45 60 75 90 105 120 135 150

Weekly minutes (XX)	

*The marker was positioned at zero point when respondents saw the slider scale.
**The "XX" value varied according to the respondents' choices on slider scale.

Other-Evaluative Perspective

Upward Social Comparison

Please, in a scale varying from 0 to 150 minutes, how much **spare time others have compared to you in an inferior condition**?

0 15 30 45 60 75 90 105 120 135 150

Weekly minutes (XX)	

*The marker was positioned at zero point when respondents saw the slider scale.
**The "XX" value varied according to the respondents' choices on slider scale.

Downward Social Comparison

Please, in a scale varying from 0 to 150 minutes, how much **spare time others have compared to you in a superior condition**?

0 15 30 45 60 75 90 105 120 135 150

Weekly minutes (XX)	

*The marker was positioned at zero point when respondents saw the slider scale.
**The "XX" value varied according to the respondents' choices on slider scale.

Control Condition

Please, in a scale varying from 0 to 150 minutes, how much **spare time others have compared to you in the same condition**?

0 15 30 45 60 75 90 105 120 135 150

Weekly minutes (XX)	

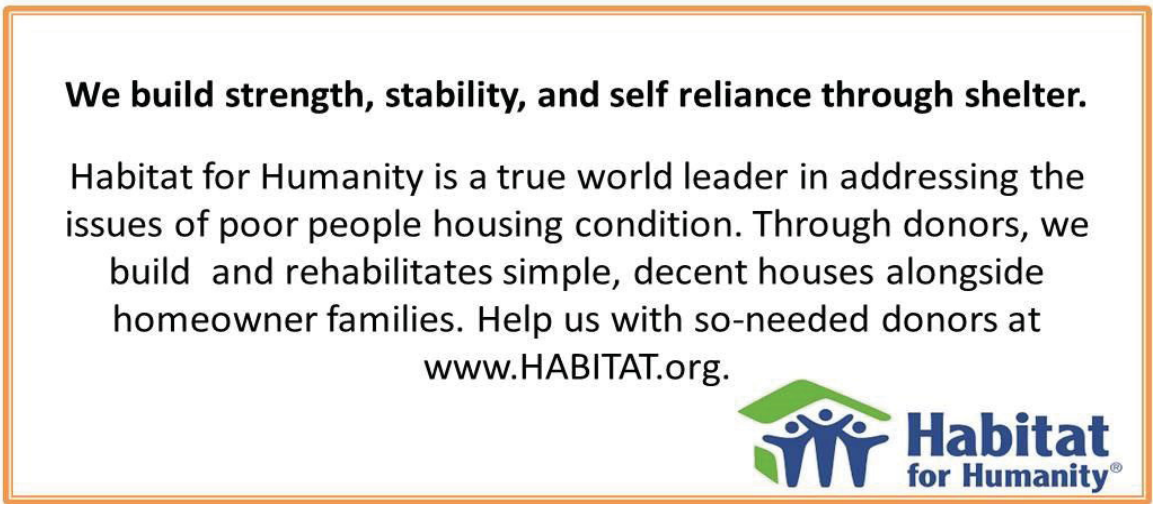
*The marker was positioned at zero point when respondents saw the slider scale.
**The "XX" value varied according to the respondents' choices on slider scale.

Meritocratic Beliefs (Study 5)

Please indicate how much you agree or disagree with the following statements:

	1 = Strongly Disagree	2	3	4	5	6	7 = Strongly Agree
Anyone who is willing and able to work hard has a good chance of succeeding.	( )	( )	( )	( )	( )	( )	( )
Getting ahead is a matter of working hard and relying on yourself.	( )	( )	( )	( )	( )	( )	( )
Most people who don't get ahead in our society should not blame the system; they have only themselves to blame	( )	( )	( )	( )	( )	( )	( )
Economic positions are legitimate reflections of people's achievements	( )	( )	( )	( )	( )	( )	( )
Equal distribution of resources is unnatural	( )	( )	( )	( )	( )	( )	( )
It is unfair to have an economic system which produces extreme wealth and extreme poverty at the same time	( )	( )	( )	( )	( )	( )	( )
The system does very well at rewarding individual ability and motivation	( )	( )	( )	( )	( )	( )	( )
A person can take almost all responsibility for their standing in society.	( )	( )	( )	( )	( )	( )	( )
A person's success is almost never due to having advantages in the system.	( )	( )	( )	( )	( )	( )	( )
In our society, a person is deserving of almost every success.	( )	( )	( )	( )	( )	( )	( )

APPENDIX B – SOCIAL CAUSE ADVERTISEMENT (STUDIES 1A, 2, AND 5)



APPENDIX C – SOCIAL CAUSE ADVERTISEMENT (STUDIES 1B, AND 4)

APPENDIX D – SOCIAL CAUSE ADVERTISEMENT (STUDY 3)

GUARANTEE CHILDHOOD AND ADOLESCENCE DEPENDS ON YOU

Did you know you can help us without spending or leaving home?

This semester we are launching online volunteering, a way to help us accomplish tasks from your home, in your time! There are support vacancies in marketing, logistics, accounting, economics, human resources, planning, and digital media areas. Help us to continue assist millions of children in humanitarian crisis situations such as conflicts, natural disasters, and other emergencies!

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